# ***PROJECT REPORT***

**DATE : 18/11/2022**

**TEAM ID : PNT2022TMID34246**

**BATCH NO : B12-6A2E**

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# 1. INTRODUCTION

## 1.1 Project Overview

The objective of this system is to manage the items in an inventory such as tracking orders, placing orders to other suppliers and checking the items in the inventory. The system allows the admin to maintain the items in the inventory.

Whenever the item levels go low, the system places an order to the supplier. The supplier gets the notification of these orders as soon as they are placed and can send the items to the inventory. There are two login pages each for the admin and supplier.

The software has been developed using the most powerful and secured backend Python and IBM Cloud for the databases and most widely accepted frontend JavaScript with HTML and CSS coding

## 1.2 Purpose

The primary purpose of inventory management is to ensure there is enough goods or materials to meet demand without creating overstock, or excess inventory

Retail management refers to the process of helping customers find products in your store. It includes everything from increasing your customer pool to how products are presented, and how you fulfill a customer's needs. A good store manager helps customers leave the store with a smile.

# 2. LITERATURE SURVEY

## 2.1 Existing problem

- The problem faced by the company is they do not have any systematic system to record and keep their inventory data. It is difficult for the admin to record the inventory data quickly and safely because they only keep it in the logbook and not properly organized.

- Good planning and sales forecast before setting optimal inventory levels, appropriate inventory management requires close coordination between the areas of sales, purchasing and finance.

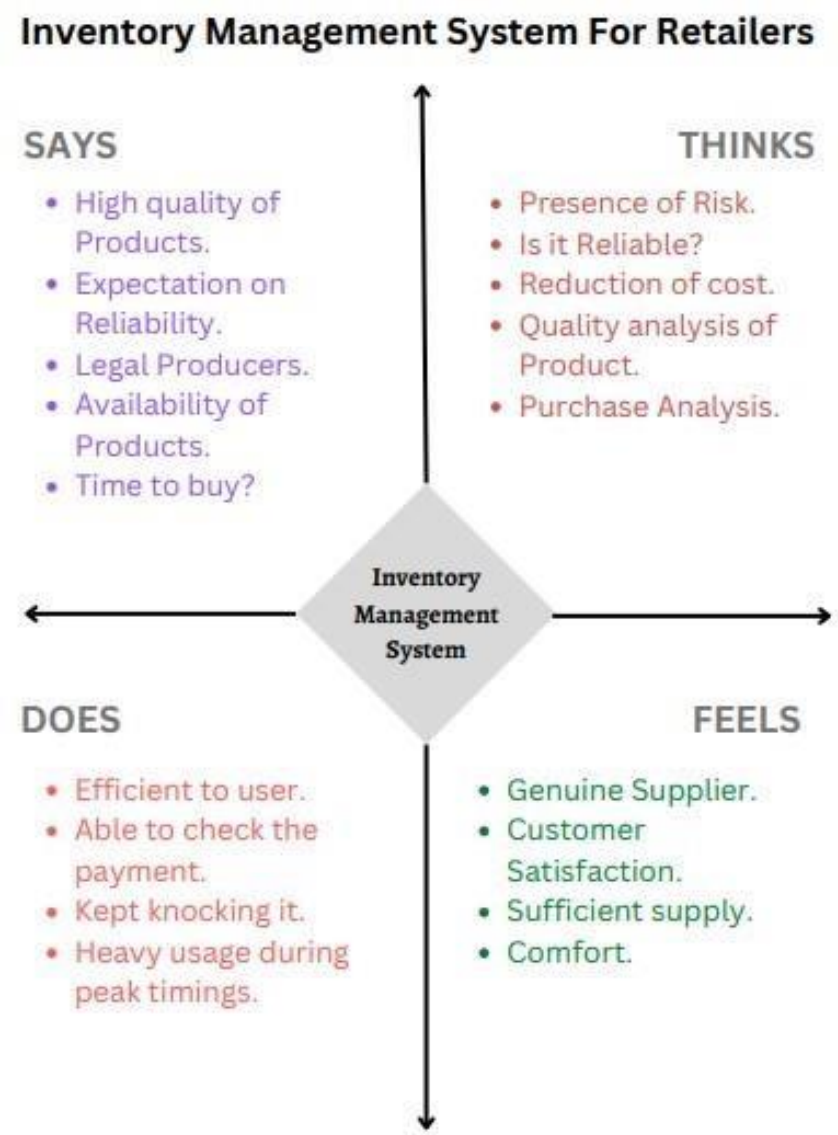
## 2.2 Problem Statement Definition

Retail inventory management works by creating systems to log products, receive them into inventory, track changes when sales occur, manage the flow of goods from purchasing to final sale and check stock counts.

# 3. IDEATION & PROPOSED SOLUTION

## 3.1 Empathy Map Canvas

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.



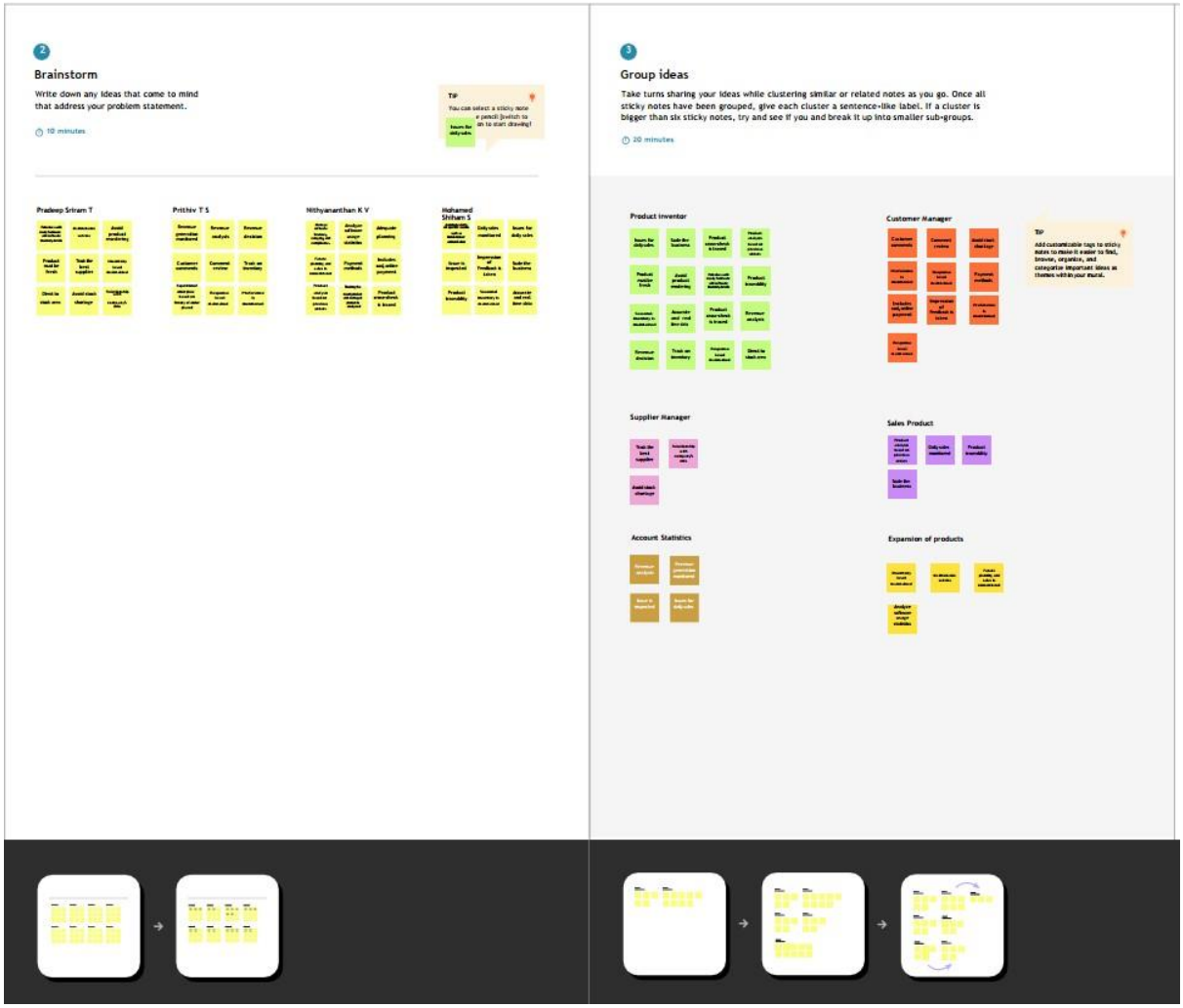
## 3.2 Ideation & Brainstorming

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

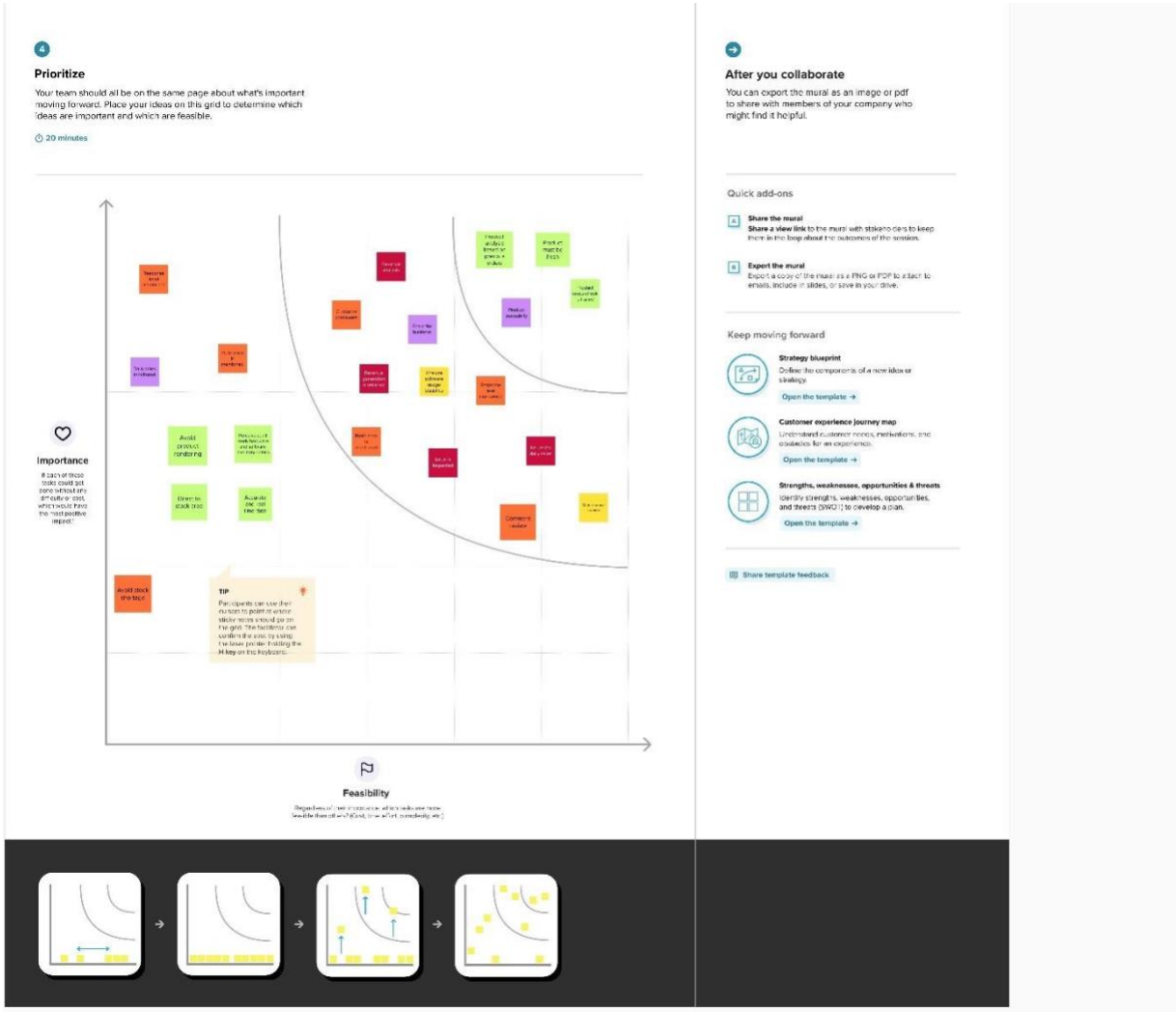
Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Step-2: Brainstorm, Idea Listing and Grouping



Step-3: Idea Prioritization



## 3.3 Proposed Solution

The system customizes and only shows recommended jobs based on the user's skill set and preferences (Using graphql api)
Similarly, the same recommendation system helps provide job applicant recommendations to the job recruiters to find the most eligible candidates for their firm.
All important data - job seeker's and hoster's personal information needs to be also stored safely and securely. Using a sql database is the most easiest, safest and convienent way possible.
Data needs to also be private in some cases like when information is shared with the host while applying for a job.

## 3.4 Problem Solution fit


Define CS, fit into CC
1. CUSTOMER SEGMENT(S)
CS
Manufacturers
6. CUSTOMER CONSTRAINTS
CC
Machine capacity
Workforce capacity
Inventory investment
Storage space or the total number of orders placed.
5. AVAILABLE SOLUTIONS
AS
You can take advantage of bulk savings
You need space for your products
Explore AS, differentiate
Focus on J&P, tap into BE, understand RC
2. JOBS-TO-BE-DONE / PROBLEMS
J&P
Inconsistent Tracking
Insufficient Order Management
Increasing Competition
Evolving Packaging
9. PROBLEM ROOT CAUSE
RC
Poor Production Planning
Lack of Expertise
Inefficient Processes
7. BEHAVIOUR
BE
Which stock sells well and which doesn't, by location and sales channel.
How changing seasons affect sales
Focus on J&P, tap into BE, understand RC
Identify strong TR & EM
3. TRIGGERS
TR
To manage changing trends, such as packaging initiatives to reduce plastic waste. Categorize stock by packaging type, dimensions and product. Use this information to centre shipping units and storage location better.
4. EMOTIONS: BEFORE / AFTER
EM
Emotions :
Before: Complexed
After : Good Satisfaction
10. YOUR SOLUTION
SL
Centralized Tracking
Stock Auditing
Add Imagery
Safety Stock
Multi-Location Warehousing
Reduce Human Error
Optimize Space
Leverage Lead Times
8. CHANNELS of BEHAVIOUR
CH
Online:
Shopping and shipping
Offline:
Demanding and less moving product to kept in front section.

## 3.5 Customer Problem Statement

# 4. REQUIREMENT ANALYSIS

## 4.1 Functional requirement

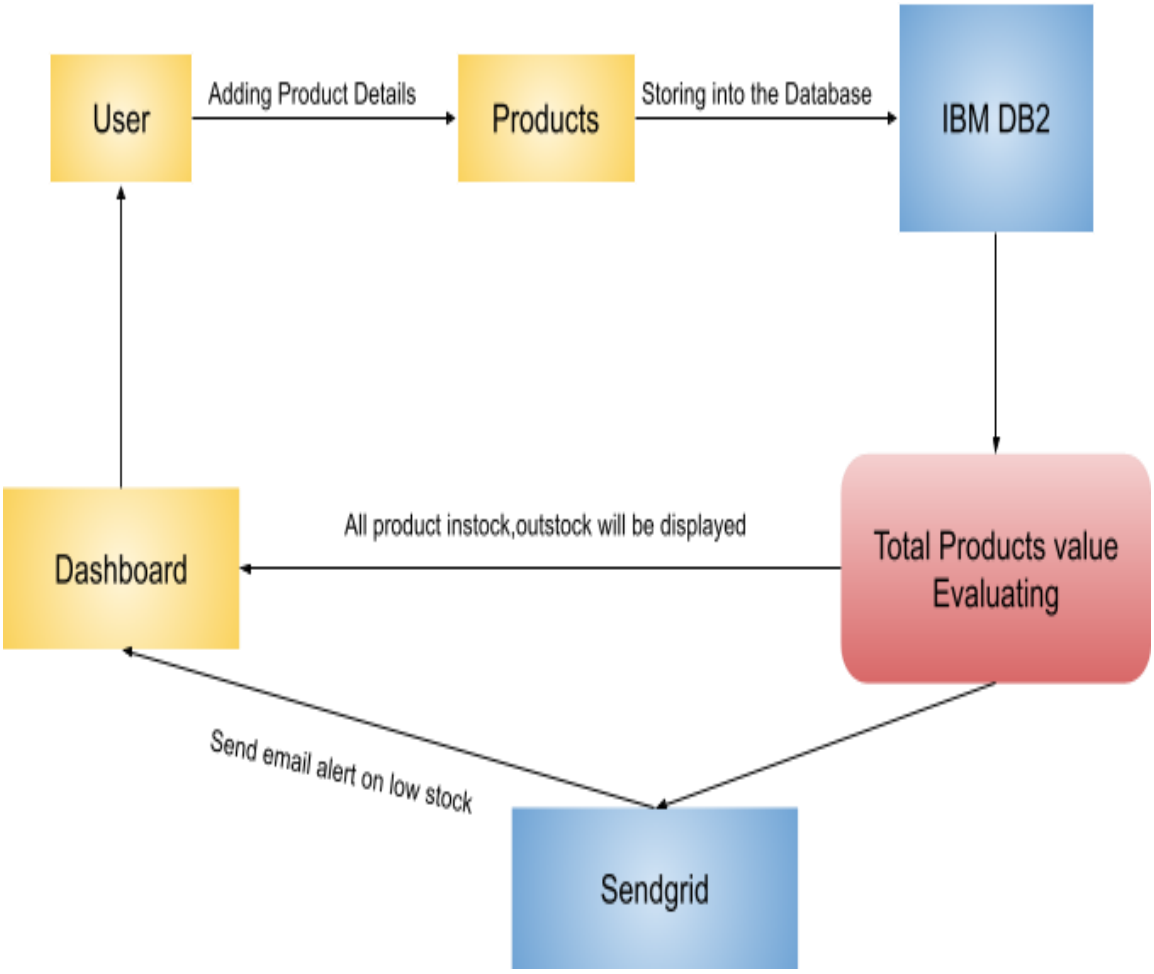
- The System aims at providing an efficient interface to the user for managing of inventory, it shall also provide the user varied options for managing the inventory through various functions at hand. The ingredient levels are continuously monitored based on their usage and are checked for the threshold levels in the inventory and accordingly the user is alerted about low levels of certain ingredients. The design is such that the user does not have to manually update the inventory every time, the System does if for the user.
- The System calculates and predicts the amount of usage for specific set days that are pre-set by the user(admin) , it also alerts the user of an impending action to order ingredients before the specific day set by the user. Therefore the user never has to worry about manually calculating the estimated usage of the ingredients as the System does it for the user.
- The simple interface of the System has functions like adding a recipe, removing or updating the recipe. It also extends to functions such as adding a vendor for an ingredient,, removing the vendor, checking threshold levels, processing orders, altering processed orders etc.

## 4.2 Non-Functional requirements

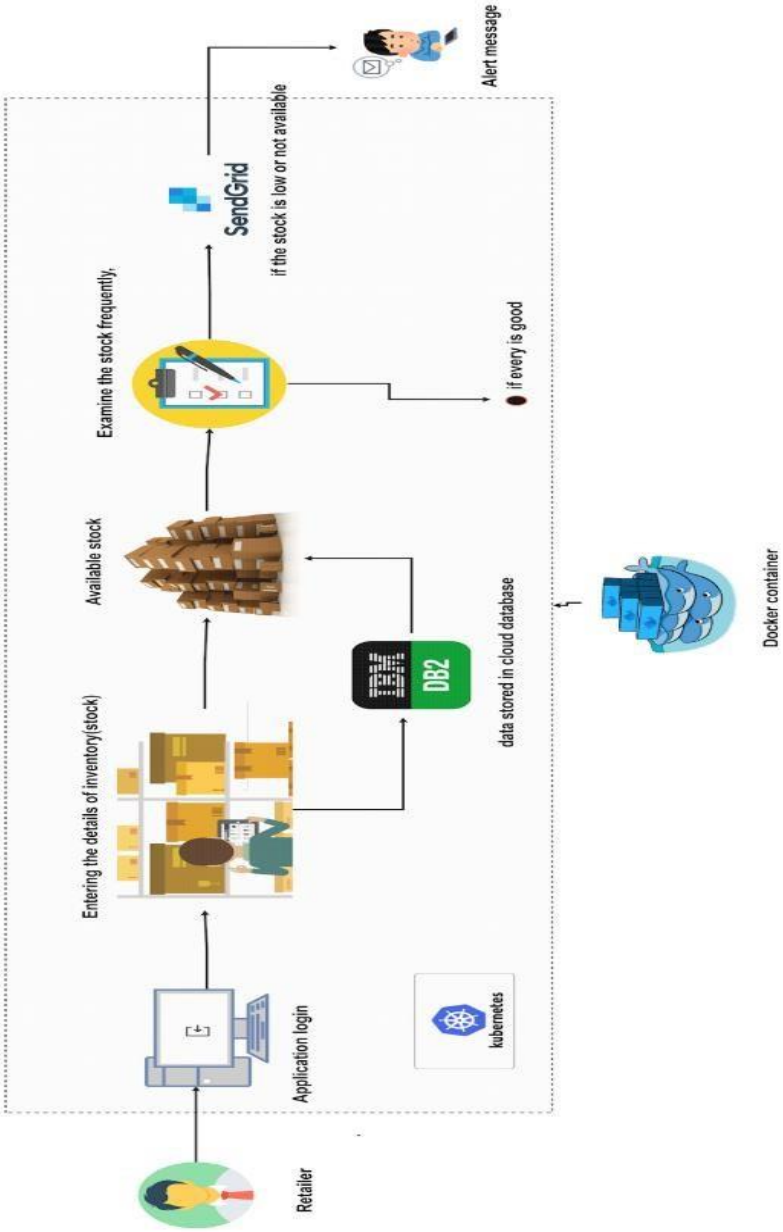
- The system must not lag, because the workers using it don't have down-time to wait for it to complete an action.
- The system must complete updating the databases, adding of recipe, ingredient, vendor and occasions successfully every time the user requests such a process.
- All the functions of the system must be available to the user every time the system is turned on.
- The calculations performed by the system must comply according to the norms set by the user and should not vary unless explicitly changed by the user
- The System must give accurate inventory status to the user continuously. Any inaccuracies are taken care by the regular confirming of the actual levels with the levels displayed in the system.
- The System must successfully add any recipe, ingredients, vendors or special occasions given by the user and provide estimations and inventory status in relevance with the newly updated entities.

# 5. PROJECT DESIGN

## 5.1 Data Flow Diagrams



## 5.2 Solution & Technical Architecture



## 5.3 User Stories

| User Type | Functional Requirement(Epic) | User Story Number | User Story / Task | Acceptance criteria | Priority | Release |
|---|---|---|---|---|---|---|
| Retailer | Registration | USN-1 | As a user, I can register for the application byentering my email, password, and confirming my password. | I can access my account /dashboard | High | Sprint-1 |
| | | USN-2 | As a user, I will receive confirmation email once I have registered for the application | I can receive confirmation email & click confirm | Medium | Sprint-1 |
| | Login | USN-3 | As a user, I can log into the application byentering email & password | I can access my account /dashboard | High | Sprint-1 |
| | Dashboard | USN-4 | As a user, I can view the stock list andsuppliers list | Once I log in to the system, I can able to view the stocks | Medium | Sprint-1 |
| | Items | USN-5 | As a user, I can add the items. | I can create a new type ofitem | High | Sprint-2 |
| | | USN-6 | As a user, I can see the items | I can be able to see the items that can be added to the inventory | Low | Sprint-2 |
| | Inventory | USN-7 | As a user, I can add the items to inventory. | I can add items to the inventory with quantity | High | Sprint-2 |
| | | USN-8 | As a user, I can see the items in the inventory. | I can see the inventory items with quantity | Low | Sprint-2 |
| | Indication | USN-9 | As a user, I can be able to receive indication | I receive a notification when the stock running low | High | Sprint-3 |
| | Location | USN-10 | As a user, I can be able to see items from a particular store location | I can be able to make purchase from a particularlocation | Medium | Sprint-3 |
| | | USN-11 | As a user, I can add a new location of my store | I can be able to add new store locations | Medium | Sprint - 3 |
| Customer | Purchase | USN -12 | As a customer, I can be able to purchase goodfrom the particular location of the store | I can able to purchasefrom the store | High | Sprint - 4 |
| Retailer & Customer | Deployment | USN-13 | As a user, I can access the software in the web | I can access the software in web | High | Sprint -4 |

# 6. PROJECT PLANNING & SCHEDULING

## 6.1 Sprint Planning & Estimation

| Sprint | Functional Requirement (Epic) | User Story Number | User Story / Task | Story Points |
|---|---|---|---|---|
| Sprint-1 | Registration | USN-1 | As a user, I can register for the application by using my email & password and confirming my login credentials. | 3 |
| Sprint-1 | | USN-2 | As a user, I can login through my E-mail. | 3 |
| Sprint-1 | Confirmation | USN-3 | As a user, I can receive my confirmation email once I have registered for the application. | 2 |
| Sprint-1 | Login | USN-4 | As a user, I can log in to the authorized account by entering the registered email and password. | 3 |
| Sprint-2 | Dashboard | USN-5 | As a user, I can view the products that are available currently. | 4 |
| Sprint-2 | Stocks update | USN-6 | As a user, I can add products which are not available in the inventory and restock the products. | 3 |

| | | | | |
|---|---|---|---|---|
| Sprint-3 | Sales prediction | USN-7 | As a user, I can get access to sales prediction tool which can help me to predict better restock management of product. | 6 |
| Sprint-4 | Request for customer care | USN-8 | As a user, I am able to request customer care to get in touch with the administrators and enquire the doubts and problems. | 4 |
| Sprint-4 | Giving feedback | USN-9 | As a user, I am able to send feedback forms reporting any ideas for improving or resolving any issues I am facing to get it resolved. | 3 |

## 6.2 Milestone And Activities

| TITLE | DESCRIPTION |
|---|---|
| Literature Survey & Information Gathering | Literature survey on selected project and gathering information by referring the project's related technical papers, research publications, etc. |
| Prepare Empathy Map | Prepare empathy map canvas to capture the user's pains & gains and prepare the list of problem statements. |

| | |
|---|---|
| Ideation | To list by the organizing brainstorm sessions and prioritize the top three ideas based on the feasibility and importance. |
| Proposed Solution | To prepare the proposed solution documents, which includes the novelty, feasibility of ideas, business model, social impact, scalability of the solution, etc. |
| Problem Solution Fit | Preparing the problem solution fit document. |
| Solution Architecture | To prepare the solution architecture document |
| Customer Journey | Prepare the customers journey map help the customers understand the user interaction and experiences with the application from the beginning to the end. |
| Functional Requirement | Prepare the functional requirement document. |
| Data Flow Diagrams | Draw the data flow diagrams and submit for the review. |
| Technology Architecture | Prepare technical architecture diagram. |

| | |
|---|---|
| Prepare Milestone & Activity List | Prepare the milestones and activity of the project. |
| Project Development – Delivery of Sprint-1, 2, 3 & 4 | Develop and submit the developed code by testing it and having no errors. |

# 7. CODING&SOLUTIONING

# (Explain the features added in the project along with code)

## 7.1 Feature 1

Complete insights into key products and service drivers. With the help of tables and symbols, marketers can effectively track and analyse factors that have an effect on important bottom lines like profitability. Store Managers can also effectively optimise product mix across channels, lines and brands with the product scorecards available. Some of the different KPIs that managers can avail of from product performance metrics are product sales by region, change in sales and margin per product, ROI per product, top competitor by product category and much more..

## 7.2 Feature 2

The entire organisation can access the same store data simultaneously and thus everyone has an understanding of what the customer wants. Managers can better monitor progress, respond immediately to customer needs, adjust parameters for continuous improvement, and exercise greater control over the organisation.

One can record and analyze inventory results and merchandise processes daily to know whether business decisions are based on timely, accurate information.

## 7.3 Code

### Login.html

```
<!{% extends 'base.html' %}

{% block head %}

   <title>Login</title>

{% endblock %}

{% block body %}

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        }
        @media (max-width: 450px) {

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        }
        }

.hlink{
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none;
        }
        </style>
```

```
<section class="vh-100">
  <div class="container-fluid h-custom">
    <div class="row d-flex justify-content-center align-items-center h-100">
      <div class="col-md-9 col-lg-6 col-xl-5">
        <img src="static/img/vecteezy_3d-face-lock-illustration_12421761_968.png"
class="img-fluid" alt="Sample image">

      </div>
      <div class="col-md-8 col-lg-6 col-xl-4 offset-xl-1">
        <form class="mx-1 mx-md-4" action="{{ url_for('login') }}" method="post">
          <div class="d-flex align-items-center mb-3 pb-1">
            <span class="h1 fw-bold mb-0">Login</span>
          </div>
<!-- Email input -->
          <div class="form-outline mb-4">
            <input type="email" name="email" value="" placeholder="Email ID"  class="form-control" />
          </div>
<!-- Password input -->
          <div class="form-outline mb-3">
            <input type="password" name="password" value="" placeholder="Password" class="form-control" />
          </div>
          <div class="text-center text-lg-start mt-4 pt-2">
          <input type="submit" class="btn btn-primary btn-lg" style="width: 125px; display: block; margin-left:
auto; margin-right: auto;">
          </div>
          <p class="support-p" style="margin-top: 10px;">Don't have an Account?
            <a href="/register" style="color: rgb(0, 0, 0); text-decoration: none;"><strong style="font-size:
large;">Register</strong></a>
          </p>
        </form>
```

```
            </div>
          </div>
        </div>
      </section>
    {% endblock %}
```

## mystyle.css

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}

.bg {  background-image: url('pexels-

francesco-ungaro281260.jpg');

background-position: center;

```
backgroundrepeat: no-repeat;

background-size: cover;

}
```

## DASHBOARD

## Users.html

```
{% extends 'dashboard/base.html' %}

{% block head %}

   <title>Dashboard</title>

   <style>

   .container

   {

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border

-color:

#ffffff;

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width:

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-right:
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ease  }
.contai
ner:ho
ver  {
transf
orm:
scale(1
.05);  }
   </style>
{% endblock %}
{% block body %}
<div class="home-content">
  <div class="overview-boxes">
      <section class="catogories" >
```

```
<div class="container-fluid">  <div class="row">
  <div class="col-lg-6">
     <div class="row">
      <div class="col-lg-6 col-md-6 col-12 p-1">
        <div class="catagories_item">
          <div class="container">
            <a href="/productlist" style="text-decoration: none; color: black">
            <div class="box-topic">Products List
            </div></a>
            <a href="/productlist" style="text-decoration: none; color: black">
              <img src="static/img/Cyber Monday-rafiki.png" class="img-fluid" width="350px">
            </a>
          </div>
        </div>
      </div>
      <div class="col-lg-6 col-md-6 col-12 p-1">
        <div class="catagories_item">
          <div class="container">
            <a href="/addproduct" style="text-decoration: none; color: black">
            <div class="box-topic">Add Products
            </div></a>
            <a href="/addproduct" style="text-decoration: none; color: black">
              <img src="static/img/Add to Cart-rafiki.png" class="img-fluid" width="350px">
            </a>
          </div>
        </div>
      </div>
     </div>
    </div>
```

```
<div class="col-lg-6">
    <div class="row">
      <div class="col-lg-6 col-md-6 col-12 p-1">
        <div class="catagories_item">
          <div class="container">
            <a href="/movement" style="text-decoration: none; color: black">
            <div class="box-topic">Products Movement
            </div></a>
            <a href="/movement" style="text-decoration: none; color: black"><img src="static/img/Add to Cart-
amico.png" class="img-fluid" width="350px">
              </a>
          </div>
        </div>
      </div>
    <div class="col-lg-6 col-md-6 col-12 p-1">
        <div class="catagories_item">
          <div class="container">
            <a href="/report" style="text-decoration: none; color: black">
            <div class="box-topic">Product Report
            </div></a>
            <a href="/report" style="text-decoration: none; color: black">
              <img src="static/img/Usability testing-pana.png" class="img-fluid" width="350px">
              </a>
          </div>
        </div>
      </div>
    </div>
  </div>
</div>
```

```
          </div>
         </div>
       </div>
     </section>
  </div>
</div>
{{msg}}
 {% endblock %}
```

## special.html

```
{% extends 'dashboard/base.html' %}
{% block head %}
   <title>List of Users</title>
{% endblock %}
{% block body %}
<link href="//maxcdn.bootstrapcdn.com/bootstrap/3.3.0/css/bootstrap.min.css" rel="stylesheet" id="bootstrap-
css">
<div > </div>
   <div class="home-content">
     <div class="overview-boxes">
       <section
class="catogori
es" >         <div
class="contain
er-fluid">
          <div class="row">
             <div class="col-lg-6">
               <div class="row">
                  <div class="col-lg-6 col-md-6 col-12 p-1">
```

```
            <div class="catagories_item">
          </div>
        </div>
        <div class="col-lg-6 p-0" style=" margin-top: 25px;">
            <div class="catagories_item">
            <div class="catagories_item catagories_large_item" >
              </div>
           </div>
        </div>
        <div class="col-lg-6 col-md-6 col-12 p-1">
            <div class="catagories_item">
           </div>
        </div>
        <div class="col-lg-6 col-md-6 col-12 p-1">
            <div class="catagories_item">

            </div>
        </div>
    </div>
  </div>
<div class="container register-form">
     <div class="form">
       <div class="d-flex align-items-center mb-3 pb-1">
        {{msg}}
        <span class="h1 fw-bold mb-0">Product List</span>
       </div>
       <table class="table table-hover">
        <thead>
          <tr>
```

```
                <th>ID</th>
                <th>PRODUCT NAME</th>
                <th>QUANTITY</th>
                 <th>DATE</th>
               </tr>
              </thead>
              {% for row in products %}
             <tr>
                <td>{{row["ID"]}}</td>
                <td>{{row["PRODUCTNAME"]}}</td>
                <td>{{row["QUANTITY"]}}</td>
                 <td>{{row["DATE"]}}</td>
                </tr>
               {% endfor %}
             </table>
           </div>
            </div>
              </div>
            </div>
          </div>
        </div>
    </section>
 {% endblock %}
```

## app.py

```
from turtle import st from flask import Flask, render_template, request,
redirect, url_for, session from markupsafe import escape import ibm_db

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=54a2f15b-5c0f-46df-8954-
```

7e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32733;SECURITY=SSL;SSLServerCertificate =DigiCertGlo balRootCA.crt;UID=lkc93724;PWD=zAzNGa6DaNk6xvle",'','') import smtplib, ssl ## email.mime subclasses from email.mime.multipart import MIMEMultipart from email.mime.text import MIMEText

## The pandas library is only for generating the current date, which is not necessary for

sending emails import pandas as pd app = Flask(__name__)

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:
        return render_template('home.html')   return
render_template('home.html', session = session)
@app.route('/re
gister') def
new_student():
  return render_template('Register.html')
@app.route('/addrec',methods   =
['POST',  'GET'])  def  addrec():     if
request.method       ==       'POST':
```

```
fname = request.form['fname']
lname = request.form['lname']
cname = request.form['cname']
state = request.form['state']  city
= request.form['city']  mobileno
= request.form['mobileno']
emailid = request.form['emailid']
password =
request.form['password']
pincode = request.form['pincode']
sql = "SELECT * FROM Users
WHERE EMAILID =?"
  stmt =
ibm_db.prepare(conn,
sql)
ibm_db.bind_param(s
tmt,1,emailid)
ibm_db.execute(stmt)
account =
ibm_db.fetch_assoc(st
mt) if account:  users
= []  sql = "SELECT *
FROM Users"  stmt
=
ibm_db.exec_immedia
te(conn,  sql)
dictionary =
ibm_db.fetch_both(st
```

```
mt)     while dictionary
!= False:
      # print ("The Name is : ",   dictionary)            users.append(dictionary)            dictionary =
ibm_db.fetch_both(stmt)     return render_template('list.html', msg="You are already a member,
please login using your details", users = users)     else:
     var_list.append(fname)
var_list.append(lname)
var_list.append(cname)
var_list.append(state)
var_list.append(city)
var_list.append(mobileno)
var_list.append(emailid)
var_list.append(password)
var_list.append(pincode)
   bodytemp = r'D:\IBM\GUIDED PROJECT\INVENTORY MANAGEMENT SYSTEM FOR
RETAILERS\templates\email.html'       with open(bodytemp, "r", encoding='utf-8') as f:           html= f.read()
 # Set up the email addresses and password. Please replace below with your email address and
password      email_from = 'padhu10a@gmail.com'      epassword = 'rbjibzkssszsbrjo'      email_to =
emailid
# Generate today's date to be included in the
email Subject      date_str =
pd.Timestamp.today().strftime('%Y-%m-%d')
# Create a MIMEMultipart class, and set up the From, To, Subject
fields      email_message = MIMEMultipart()
email_message['From'] = email_from      email_message['To'] =
email_to      email_message['Subject'] = f'Report email - {date_str}'
# Attach the html doc defined earlier, as a MIMEText html content type to the MIME message
email_message.attach(MIMEText(html, "html"))
```

```
    # Convert it as a string      email_string =
email_message.as_string() # Connect to the Gmail SMTP
server and Send Email      context =
ssl.create_default_context()      with
smtplib.SMTP_SSL("smtp.gmail.com", 465,
context=context) as server:
        server.login(email_from, epassword)
server.sendmail(email_from, email_to, email_string)      return
render_template('notify.html')

@app.route('/c
onfirm') def
confirnation():
  insert_sql = "INSERT INTO Users (FIRSTNAME, LASTNAME, COMPANYNAME, STATE, CITY, MOBILENO, EMAILID,
PASSWORD, PINCODE)  VALUES (?,?,?,?,?,?,?,?,?)"    prep_stmt = ibm_db.prepare(conn, insert_sql)
ibm_db.bind_param(prep_stmt, 1, var_list[0])    ibm_db.bind_param(prep_stmt, 2, var_list[1])
ibm_db.bind_param(prep_stmt, 3, var_list[2])    ibm_db.bind_param(prep_stmt, 4, var_list[3])
ibm_db.bind_param(prep_stmt, 5, var_list[4])
ibm_db.bind_param(prep_stmt, 6, var_list[5])    ibm_db.bind_param(prep_stmt, 7, var_list[6])
ibm_db.bind_param(prep_stmt, 8, var_list[7])    ibm_db.bind_param(prep_stmt, 9, var_list[8])
ibm_db.execute(prep_stmt)    return render_template('confirm.html')
@app.route('/login', methods =['POST', 'GET']) def login():     msg = ''

if request.method == 'POST' and 'email' in request.form and

'password' in request.form:

      email = request.form['email']
password = request.form['password']
      sql = "SELECT * FROM Users WHERE EMAILID =? AND
PASSWORD =?"        stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt,1,email)
```

```
ibm_db.bind_param(stmt,2,password)
ibm_db.execute(stmt)        account =
ibm_db.fetch_assoc(stmt) if account:
            session['loggedin'] = True            session['id'] =
account['ID']            session['email']
= account['EMAILID']
session['name'] =
account['FIRSTNAME']            msg =
'Logged in successfully !'
return
render_template('ho
me.html', msg = msg)
else:
            msg = 'Incorrect
email / password !'
return
render_template('login.ht
ml', msg = msg)

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```
None)
session.p
op('id',
None)
session.p
op('email
', None)
session.p
op('name
', None)
return
redirect(
url_for('h
ome'))
@app.ro
ute('/list'
) def
list():
users = []
  sql = "SELECT *
FROM Users"   stmt
=
ibm_db.exec_imme
diate(conn, sql)
dictionary =
ibm_db.fetch_both(
stmt)   while
dictionary != False:
```

```
# print ("The Name
is : ",  dictionary)
users.append(dictio
nary)     dictionary =
ibm_db.fetch_both(
stmt) if users:
    return render_template("list.html", users = users , session = session) return
"No users..."
```

## Users.html

```
<html>
<head>
<div class="row">
  <div class="col-md-12">
     </div>
</div>
<div class="row">
 <div class="col-md-12">
   <div class="panel panel-default">
     <div class="panel-heading clearfix">
       <strong>
         <span class="glyphicon glyphicon-th"></span>
         <span>Users</span>
       </strong>
        <a href="add_user. class="btn btn-info pull-right">Add New User</a>
     </div>
    <div class="panel-body">
```

```
<table class="table table-bordered table-striped">
  <thead>
    <tr>
      <th class="text-center" style="width: 50px;">#</th>
      <th>Name </th>
      <th>Username</th>
      <th class="text-center" style="width: 15%;">User Role</th>
      <th class="text-center" style="width: 10%;">Status</th>
      <th style="width: 20%;">Last Login</th>
      <th class="text-center" style="width: 100px;">Actions</th>
    </tr>
  </thead>
  <tbody>
   <tr>
     <td class="text-center> </td>
       <td class="text-center>
     <td class="text-center">
 <span class="label label-success”>
</td>
     <td>
     <td class="text-center">
       <div class="btn-group">
         <a href="edit_user.id=" class="btn btn-xs btn-warning" data-toggle="tooltip" title="Edit">
           <i class="glyphicon glyphicon-pencil"></i>
         </a>
           <i class="glyphicon glyphicon-remove"></i>
         </a>
         </div>
     </td>
```

```
        </tr>
  </table>
    </div>
   </div>
  </div>
</div>
</head>
</head>
```

## groups.html

```
<html> <head>
  page_title = 'All Group';   require_once('includes/load.html');
  // Checkin What level user has permission to view this page
page_require_level(1);   all_groups = find_all('user_groups');
<div class="row">
   <div class="col-md-12">
     </div>
</div>
<div class="row">
  <div class="col-md-12">
   <div class="panel panel-default">
   <div class="panel-heading clearfix">
     <strong>
       <span class="glyphicon glyphicon-th"></span>
       <span>Groups</span>
    </strong>
      <a href="add_group.html" class="btn btn-info pull-right btn-sm"> Add New Group</a>     </div>
    <div class="panel-body">
     <table class="table table-bordered">
```

```
<thead>
  <tr>
    <th class="text-center" style="width: 50px;">#</th>
    <th>Group Name</th>
    <th class="text-center" style="width: 20%;">Group Level</th>
    <th class="text-center" style="width: 15%;">Status</th>
    <th class="text-center" style="width: 100px;">Actions</th>
  </tr>
</thead>
<tbody>
 <tr>
   <td class="text-center’></td>
   <td class="text-center">
   </td>
   <td class="text-center">
    <span class="label label-success”><span>
   <span class="label label-danger’>></span>
   </td>
   <td class="text-center">
     <div class="btn-group">
        <a href="edit_group.html id=label.html class="btn btn-xs btn-warning" datatoggle="tooltip" title="Edit">
          <i class="glyphicon glyphicon-pencil"></i>
        </a>
        <a href="delete_group.html id=label.html" class="btn btn-xs btn-danger" datatoggle="tooltip"
title="Remove">
          <i class="glyphicon glyphicon-remove"></i>
        </a>
        </div>
   </td>
```

```
        </tr>
    </tbody>
     </table>
     </div>
    </div>
  </div></div>
```

## newgroup.html

```
{% extends 'base.html' %}
{% block head %}
    <title>List of Users</title>
{% endblock %}
{% block body %}
 <!-- Hero Area Start-->
     {{ msg }}
  {{ session['name'] }}
      <table border = 1>
         <thead>
            <td>FISRT NAME</td>
            <td>LAST NAME</td>
            <td>COMPANY NAME</td>
            <td>STATE</td>
            <td>CITY</td>
            <td>MOBILENO</td>
            <td>EMAILID</td>
            <td>PASSWORD</td>
            <td>PINCODE</td>
         </thead>
         {% for row in users %}
            <tr>
```

```
            <td>{{row["FIRSTNAME"]}}</td>            <td> {{ row["LASTNAME"]}}</td>
            <td>{{row["COMPANYNAME"]}}</td>
            <td>{{row['STATE']}}</td>
            <td>{{row["CITY"]}}</td>
            <td> {{ row["MOBILENO"]}}</td>
            <td>{{row["EMAILID"]}}</td>
            <td>{{row['PASSWORD']}}</td>
            <td>{{row['PINCODE']}}</td>
          </tr>
        {% endfor %}
      </table>
    {% endblock %}
```

## newuser.html

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD XHTML 1.0 Transitional //EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xmlns:v="urn:schemas-microsoft-com:vml" xmlns:o="urn:schemas-
microsoft-com:office:office">
<head>
  <!--[if gte mso 9]>
<xml>
  <o:OfficeDocumentSettings>
    <o:AllowPNG/>
    <o:PixelsPerInch>96</o:PixelsPerInch>
  </o:OfficeDocumentSettings>
</xml>
<![endif]-->
  <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
  <meta name="x-apple-disable-message-reformatting">
  <!--[if !mso]><!-->
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <!--<![endif]-->
  <title></title>
<style type="text/css">
    @media only screen and (min-width: 620px) {
      .u-row {        width: 600px !important;
      }
      .u-row .u-col {        vertical-align: top;
      }
      .u-row .u-col-100 {        width: 600px !important;
      }
    }
    @media (max-width: 620px) {       .u-row-container {
max-width: 100% !important;        padding-left: 0px
!important;        padding-right: 0px !important;
      }
      .u-row .u-col {        min-width: 320px !important;
max-width: 100% !important;        display: block
!important;
      }
      .u-row {        width: calc(100% - 40px) !important;      }

      .u-col {        width: 100% !important;
      }
      .u-col>div {        margin: 0 auto;
      }
    }
```

```
body {
     margin: 0;      padding: 0;
   }     table,     tr,     td {      vertical-align: top;
border-collapse: collapse;
   }    p {      margin: 0;
   }
   .ie-container table,     .mso-container table {
table-layout: fixed;
   }     * {      line-height: inherit;
   }
    a[x-apple-data-detectors='true'] {      color: inherit !important;      text-decoration: none !important;
   }     table,     td {      color: #000000;
   }
    #u_body a {      color: #0000ee;  text-
decoration: underline;
   }
  </style>
 <!--[if !mso]><!-->
  <link href="https://fonts.googleapis.com/css?family=Cabin:400,700" rel="stylesheet" type="text/css">
  <!--<![endif]-->
</head>
<body class="clean-body u_body" style="margin: 0;padding: 0;-webkit-text-size-adjust:
100%;background-color: #f9f9f9;color: #000000">
  <!--[if IE]><div class="ie-container"><![endif]-->
  <!--[if mso]><div class="mso-container"><![endif]-->
  <table id="u_body" style="border-collapse: collapse;table-layout: fixed;border-spacing: 0;mso-table-lspace:
0pt;mso-table-rspace: 0pt;vertical-align: top;min-width: 320px;Margin: 0 auto;background-color:
#f9f9f9;width:100%" cellpadding="0" cellspacing="0">
    <tbody>
```

```
<tr style="vertical-align: top">
<td style="word-break: break-word;border-collapse: collapse !important;vertical-align: top">
<!--[if (mso)|(IE)]><table width="100%" cellpadding="0" cellspacing="0" border="0"><tr><td align="center" style="background-color: #f9f9f9;"><![endif]-->
<div class="u-row-container" style="padding: 0px;background-color: transparent">
<div class="u-row" style="Margin: 0 auto;min-width: 320px;max-width: 600px;overflow-wrap: break-word;word-wrap: break-word;word-break: breakword;background-color: transparent;">
<div style="border-collapse: collapse;display: table;width: 100%;height: 100%;background-color: transparent;">
<!--[if (mso)|(IE)]><table width="100%" cellpadding="0" cellspacing="0" border="0"><tr><td style="padding: 0px;background-color: transparent;" align="center"><table cellpadding="0" cellspacing="0" border="0" style="width:600px;"><tr style="background-color: transparent;"><![endif]-->
<!--[if (mso)|(IE)]><td align="center" width="600" style="width: 600px;padding: 0px;border-top: 0px solid transparent;border-left: 0px solid transparent;border-right: 0px solid transparent;border-bottom: 0px solid transparent;" valign="top"><![endif]-->
<div class="u-col u-col-100" style="max-width: 320px;min-width: 600px;display: table-cell;vertical-align: top;">
<div style="height: 100%;width: 100% !important;">
<!--[if (!mso)&(!IE)]><!-->
<div style="height: 100%; padding: 0px;border-top: 0px solid transparent;border-left: 0px solid transparent;border-right: 0px solid transparent;borderbottom: 0px solid transparent;">
<!--<![endif]-->
<table style="font-family:'Cabin',sans-serif;" role="presentation" cellpadding="0" cellspacing="0" width="100%" border="0">
<tbody>
<tr>
<td style="overflow-wrap:break-word;word-break:breakword;padding:10px;font-family:'Cabin',sans-serif;" align="left">
<div style="color: #afb0c7; line-height: 170%; text-align: center; word-wrap: break-word;">
<p style="font-size: 14px; line-height: 170%;"><span style="font-size: 14px; line-height: 23.8px;">View Email in Browser</span></p>
</div>
</td>
```

```
                    </tr>
                  </tbody>
                 </table>
<!--[if (!mso)&(!IE)]><!-->
                 </div>
                 <!--<![endif]-->
                </div>
               </div>
               <!--[if (mso)|(IE)]></td><![endif]-->
               <!--[if (mso)|(IE)]></tr></table></td></tr></table><![endif]-->
              </div>
             </div>
            </div>
  <div class="u-row-container" style="padding: 0px;background-color: transparent">
           <div class="u-row" style="Margin: 0 auto;min-width: 320px;max-width: 600px;overflow-wrap: break-word;word-wrap: break-word;word-break: breakword;background-color: #ffffff;">
             <div style="border-collapse: collapse;display: table;width: 100%;height: 100%;background-color: transparent;">
               <!--[if (mso)|(IE)]><table width="100%" cellpadding="0" cellspacing="0" border="0"><tr><td style="padding: 0px;background-color: transparent;" align="center"><table cellpadding="0" cellspacing="0" border="0" style="width:600px;"><tr style="background-color: #ffffff;"><![endif]-->
 <!--[if (mso)|(IE)]><td align="center" width="600" style="width: 600px;padding: 0px;border-top: 0px solid transparent;border-left: 0px solid transparent;border-right: 0px solid transparent;border-bottom: 0px solid transparent;" valign="top"><![endif]-->
               <div class="u-col u-col-100" style="max-width: 320px;min-width: 600px;display: table-cell;vertical-align: top;">
                 <div style="height: 100%;width: 100% !important;">
                  <!--[if (!mso)&(!IE)]><!-->
                  <div style="height: 100%; padding: 0px;border-top: 0px solid transparent;border-left: 0px solid transparent;border-right: 0px solid transparent;borderbottom: 0px solid transparent;">
                   <!--<![endif]-->
```

```
<table style="font-family:'Cabin',sans-serif;" role="presentation" cellpadding="0" cellspacing="0" width="100%" border="0">
                <tbody>
                  <tr>
                    <td style="overflow-wrap:break-word;word-break:breakword;padding:20px;font-family:'Cabin',sans-serif;" align="left">
<table width="100%" cellpadding="0" cellspacing="0" border="0">
                      <tr>
<td style="padding-right: 0px;padding-left: 0px;" align="center">
<img align="center" border="0" src="https://assets.unlayer.com/projects/111476/1667819721582-Secure%20login-rafiki.png" alt="Image" title="Image" style="outline: none;text-decoration: none;-ms-interpolationmode: bicubic;clear: both;display: inline-block !important;border: none;height: auto;float: none;width: 100%;max-width: 560px;"
                        width="560" />
        </td>
                      </tr>
                    </table>
                  </td>
                </tr>
              </tbody>
            </table>
          <!--[if (!mso)&(!IE)]><!-->
          </div>
          <!--<![endif]-->
        </div>
      </div>
      <!--[if (mso)|(IE)]></td><![endif]-->
      <!--[if (mso)|(IE)]></tr></table></td></tr></table><![endif]-->
    </div>
  </div>
```

```
        </div>
<div class="u-row-container" style="padding: 0px;background-color: transparent">
          <div class="u-row" style="Margin: 0 auto;min-width: 320px;max-width: 600px;overflow-wrap: break-word;word-wrap: break-word;word-break: breakword;background-color: #003399;">
            <div style="border-collapse: collapse;display: table;width: 100%;height: 100%;background-color: transparent;">
              <!--[if (mso)|(IE)]><table width="100%" cellpadding="0" cellspacing="0" border="0"><tr><td style="padding: 0px;background-color: transparent;" align="center"><table cellpadding="0" cellspacing="0" border="0" style="width:600px;"><tr style="background-color: #003399;"><![endif]-->
 <!--[if (mso)|(IE)]><td align="center" width="600" style="width: 600px;padding: 0px;border-top: 0px solid transparent;border-left: 0px solid transparent;border-right: 0px solid transparent;border-bottom: 0px solid transparent;" valign="top"><![endif]-->
              <div class="u-col u-col-100" style="max-width: 320px;min-width: 600px;display: table-cell;vertical-align: top;">
                <div style="height: 100%;width: 100% !important;">
                  <!--[if (!mso)&(!IE)]><!-->
                  <div style="height: 100%; padding: 0px;border-top: 0px solid transparent;border-left: 0px solid transparent;border-right: 0px solid transparent;borderbottom: 0px solid transparent;">
                    <!--<![endif]-->
 <table style="font-family:'Cabin',sans-serif;" role="presentation" cellpadding="0" cellspacing="0" width="100%" border="0">
                      <tbody>
                        <tr>
                          <td style="overflow-wrap:break-word;word-break:breakword;padding:40px 10px 10px;font-family:'Cabin',sans-serif;" align="left">
 <table width="100%" cellpadding="0" cellspacing="0" border="0">
                            <tr>
                              <td style="padding-right: 0px;padding-left: 0px;" align="center">
 <img align="center" border="0" src="https://cdn.templates.unlayer.com/assets/1597218650916-xxxxc.png" alt="Image" title="Image" style="outline: none;text-decoration: none;-ms-interpolation-mode: bicubic;clear: both;display: inline-block !important;border: none;height: auto;float: none;width: 26%;max-width: 150.8px;"
                                width="150.8" />
                              </td>
```

```
                    </tr>
                   </table>
                  </td>
                 </tr>
                </tbody>
               </table>
              <table style="font-family:'Cabin',sans-serif;" role="presentation" cellpadding="0" cellspacing="0"
width="100%" border="0">
                <tbody>
                 <tr>
                  <td style="overflow-wrap:break-word;word-break:breakword;padding:10px;font-family:'Cabin',sans-
serif;" align="left">
  <div style="color: #e5eaf5; line-height: 140%; text-align: center; word-wrap: break-word;">
<p style="font-size: 14px; line-height: 140%;"><strong>T H A N K S   F O R   S I G N I N G   U P !</strong></p>
                   </div>
                  </td>
                 </tr>
                </tbody>
               </table>
 <table style="font-family:'Cabin',sans-serif;" role="presentation" cellpadding="0" cellspacing="0" width="100%"
border="0">
                <tbody>
                 <tr>
                  <td style="overflow-wrap:break-word;word-break:break-word;padding:0px
10px 31px;font-family:'Cabin',sans-serif;" align="left">
<div style="color: #e5eaf5; line-height: 140%; text-align: center; word-wrap: break-word;">
                   <p style="font-size: 14px; line-height: 140%;"><span style="font-size:
28px; line-height: 39.2px;"><strong><span style="line-height: 39.2px; font-size: 28px;">Confirm Your E-mail Address
</span></strong>
                    </span>
                   </p>
```

```
                    </div>
                   </td>
                  </tr>
                 </tbody>
                </table>
                <!--[if (!mso)&(!IE)]><!-->
               </div>
               <!--<![endif]-->
              </div>
             </div>
             <!--[if (mso)|(IE)]></td><![endif]-->
             <!--[if (mso)|(IE)]></tr></table></td></tr></table><![endif]-->
            </div>
           </div>
          </div>
<div class="u-row-container" style="padding: 0px;background-color: transparent">
          <div class="u-row" style="Margin: 0 auto;min-width: 320px;max-width: 600px;overflow-wrap: break-word;word-wrap: break-word;word-break: breakword;background-color: #ffffff;">
            <div style="border-collapse: collapse;display: table;width: 100%;height: 100%;background-color: transparent;">
             <!--[if (mso)|(IE)]><table width="100%" cellpadding="0" cellspacing="0" border="0"><tr><td style="padding: 0px;background-color: transparent;" align="center"><table cellpadding="0" cellspacing="0" border="0" style="width:600px;"><tr style="background-color: #ffffff;"><![endif]-->
<!--[if (mso)|(IE)]><td align="center" width="600" style="width: 600px;padding: 0px;border-top: 0px solid transparent;border-left: 0px solid transparent;border-right: 0px solid transparent;border-bottom: 0px solid transparent;" valign="top"><![endif]-->
             <div class="u-col u-col-100" style="max-width: 320px;min-width: 600px;display: table-cell;vertical-align: top;">
               <div style="height: 100%;width: 100% !important;">
                <!--[if (!mso)&(!IE)]><!-->
                <div style="height: 100%; padding: 0px;border-top: 0px solid transparent;border-left: 0px solid transparent;border-right: 0px solid transparent;borderbottom: 0px solid transparent;">
```

```
<!--<![endif]-->
<table style="font-family:'Cabin',sans-serif;" role="presentation" cellpadding="0" cellspacing="0" width="100%" border="0">
<tbody>
<tr>
<td style="overflow-wrap:break-word;word-break:breakword;padding:33px 55px;font-family:'Cabin',sans-serif;" align="left">
<div style="line-height: 160%; text-align: center; word-wrap: break-word;">
<p style="font-size: 14px; line-height: 160%;"><span style="font-size: 22px; line-height: 35.2px;">Hi, </span></p>
<p style="font-size: 14px; line-height: 160%;"><span style="font-size: 18px; line-height: 28.8px;">You're almost ready to get started. Please click on the button below to confirm your email address and experience the awesome Inventory Management Service!</span></p>
</div>
</td>
</tr>
</tbody>
</table>
<table style="font-family:'Cabin',sans-serif;" role="presentation" cellpadding="0" cellspacing="0" width="100%" border="0">
<tbody>
<tr>
<td style="overflow-wrap:break-word;word-break:breakword;padding:10px;font-family:'Cabin',sans-serif;" align="left">
<!--[if mso]><style>.v-button {background: transparent !important;}</style><![endif]-->
<div align="center">
<!--[if mso]><v:roundrect xmlns:v="urn:schemas-microsoft-com:vml" xmlns:w="urn:schemas-microsoft-com:office:word" href="http://localhost:5000/confirm" style="height:46px; v-text-anchor:middle; width:157px;" arcsize="8.5%" stroke="f" fillcolor="#9ecbe4"><w:anchorlock/><center style="color:#103c55;font-family:'Cabin',sansserif;"><![endif]-->
<a href="http://localhost:5000/confirm" target="_blank" class="v-button" style="boxsizing: border-box;display: inline-block;font-family:'Cabin',sans-serif;text-decoration: none;webkit-text-size-adjust: none;text-align:
```

center;color: #103c55; background-color: #9ecbe4; border-radius: 4px;-webkit-border-radius: 4px; -moz-border-radius: 4px; width:auto; maxwidth:100%; overflow-wrap: break-word; word-break: break-word; word-wrap:break-word; mso-border-alt: none;">

CONFIRM

</a>

<!--[if mso]> </v:roundrect><![endif]-->

</td>

</tr>

</tbody>

</table>

<table style="font-family:'Cabin',sans-serif;" role="presentation" cellpadding="0" cellspacing="0" width="100%" border="0">

<tbody>

<tr>

<td style="overflow-wrap:break-word;word-break:breakword;padding:33px 55px 60px;font-family:'Cabin',sans-serif;" align="left">

Once again, Thanks for signing up with us!

</td>

</tr>

</tbody>

</table>

<!--[if (!mso)&(!IE)]><!-->

```
                <!--<![endif]-->
              </div>
            </div>
            <!--[if (mso)|(IE)]></td><![endif]-->
            <!--[if (mso)|(IE)]></tr></table></td></tr></table><![endif]-->
          </div>
        </div>
      </div>
      <!--[if (mso)|(IE)]></td></tr></table><![endif]-->
    </td>
  </tr>
 </tbody>
</table>
<!--[if mso]></div><![endif]-->
<!--[if IE]></div><![endif]-->
</body>
</html>
```

## mystyle.css

```
.right {    display: block;    float: right;
color: blue;
}
.bg {    background-image: url('pexels-francesco-ungaro-281260.jpg');    background-
position: center;    background-repeat: no-repeat;    background-size: cover;
}
```

## app.py

```
from turtle import st from flask import Flask, render_template, request, redirect, url_for, session
from markupsafe import escape import ibm_db
```

```
conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=54a2f15b-5c0f-46df-
89547e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32733;SECURITY
=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=lkc93724;PWD=zAzNGa6Da
Nk6xvle",'','') import smtplib, ssl ## email.mime subclasses from

email.mime.multipart import MIMEMultipart from email.mime.text

import MIMEText

## The pandas library is only for generating the current date, which is not necessary for sending emails import

pandas as pd from datetime import datetime from flask import Flask app = Flask(__name__)

var_list = [] app.secret_key = 'your secret key'

@app.route('/')     def     home():              if     not

session.get("name"):

       return render_template('home.html')   return

render_template('home.html', session = session)

@app.route('/register') def new_student():

  return render_template('Register.html') @app.route('/addrec',methods =

['POST', 'GET']) def addrec():

  if request.method == 'POST':     fname =

request.form['fname']     lname = request.form['lname']

cname = request.form['cname']     state =

request.form['state']     city = request.form['city']     mobileno

= request.form['mobileno']     emailid =

request.form['emailid']     password =

request.form['password']     pincode =

request.form['pincode']

  sql = "SELECT * FROM Users WHERE EMAILID =?"

    stmt = ibm_db.prepare(conn, sql)

ibm_db.bind_param(stmt,1,emailid)

ibm_db.execute(stmt)     account =

ibm_db.fetch_assoc(stmt)   if account:       users = []
```

```
    sql = "SELECT * FROM Users"      stmt =
ibm_db.exec_immediate(conn, sql)      dictionary =
ibm_db.fetch_both(stmt)      while dictionary != False:
      #      print      ("The      Name      is      :      ",          dictionary)
users.append(dictionary)                                    dictionary     =
ibm_db.fetch_both(stmt)
    return render_template('list.html', msg="You are already a member, please login using your details", users =
users)
   else:
    var_list.append(fname)      var_list.append(lname)
var_list.append(cname)      var_list.append(state)
var_list.append(city)      var_list.append(mobileno)
var_list.append(emailid)      var_list.append(password)
var_list.append(pincode)
        bodytemp = r"D:\IBM\GUIDED PROJECT\INVENTORY MANAGEMENT SYSTEM FOR RETAILERS\SPRINT
2\templates\email.html"
    with open(bodytemp, "r", encoding='utf-8') as f:
        html= f.read()
    # Set up the email addresses and password. Please replace below with your email address and password
email_from = 'padhu10a@gmail.com'      epassword = 'rbjibzkssszsbrjo'      email_to = emailid
  # Generate today's date to be included in the email Subject      date_str =
pd.Timestamp.today().strftime('%Y-%m-%d')    # Create a MIMEMultipart class, and set up
the From, To, Subject fields      email_message = MIMEMultipart()
email_message['From'] = email_from      email_message['To'] = email_to
email_message['Subject'] = f'Report email - {date_str}'
 # Attach the html doc defined earlier, as a MIMEText html content type to the MIME message
email_message.attach(MIMEText(html, "html"))
```

```
    # Convert it as a string      email_string = email_message.as_string()  # Connect to the Gmail SMTP
server and Send Email      context = ssl.create_default_context()      with
smtplib.SMTP_SSL("smtp.gmail.com", 465, context=context) as server:
        server.login(email_from,  epassword)              server.sendmail(email_from,
email_to, email_string)      return render_template('notify.html')
@app.route('/confirm') def confirnation():
  insert_sql = "INSERT INTO Users (FIRSTNAME, LASTNAME, COMPANYNAME,
STATE, CITY, MOBILENO, EMAILID, PASSWORD, PINCODE)  VALUES
(?,?,?,?,?,?,?,?,?)"    prep_stmt = ibm_db.prepare(conn, insert_sql)
ibm_db.bind_param(prep_stmt, 1, var_list[0])
ibm_db.bind_param(prep_stmt, 2, var_list[1])
ibm_db.bind_param(prep_stmt, 3, var_list[2])
ibm_db.bind_param(prep_stmt, 4, var_list[3])
ibm_db.bind_param(prep_stmt, 5, var_list[4])
ibm_db.bind_param(prep_stmt, 6, var_list[5])
ibm_db.bind_param(prep_stmt, 7, var_list[6])
ibm_db.bind_param(prep_stmt, 8, var_list[7])
ibm_db.bind_param(prep_stmt, 9, var_list[8])
ibm_db.execute(prep_stmt)    return render_template('confirm.html')
@app.route('/login', methods =['POST', 'GET']) def login:     msg = ''
if request.method == 'POST' and 'email' in request.form and
'password' in request.form:
      email = request.form['email']        password =
request.form['password']
sql = "SELECT * FROM Users WHERE EMAILID =? AND PASSWORD =?"
      stmt              =              ibm_db.prepare(conn,              sql)
ibm_db.bind_param(stmt,1,email)
ibm_db.bind_param(stmt,2,password)       ibm_db.execute(stmt)
account = ibm_db.fetch_assoc(stmt)  if account:
```

```
        session['loggedin'] = True          session['id'] = account['ID']          session['email'] =
account['EMAILID']          session['name'] = account['FIRSTNAME']          msg = 'Logged in
successfully !'          return render_template('dashboard/dashboard.html', msg = msg)
      else:
        msg = 'Incorrect email / password !'     return
render_template('login.html', msg = msg)
@app.route('/dashboard') def dashboard():
  return render_template('dashboard/dashboard.html')
@app.route('/addproduct')
def addproduct():
   return render_template('dashboard/addproduct.html')
@app.route('/movements') def movement():
products = []
  sql = "SELECT * FROM Products WHERE HOLDERNAME = ?"
  prep_stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(prep_stmt, 1, session['name'])
ibm_db.execute(prep_stmt)   dictionary = ibm_db.fetch_both(prep_stmt)
while dictionary != False:
     # print ("The Name is : ",  dictionary)
products.append(dictionary)     dictionary =
ibm_db.fetch_both(prep_stmt)   if products:
     return render_template("dashboard/movement.html", products = products , session = session)
@app.route('/moveproc') def moveproc():
   return render_template('dashboard/dashboard.html')
@app.route('/report') def report():
  return render_template('dashboard/report.html')
@app.route('/stockupdate') def stock():
   return render_template('dashboard/stockupdate.html')
```

```
@app.route('/index') def index():

  return render_template('dashboard/index.html') @app.route('/addproc',methods = ['POST',

'GET']) def addproc():     if request.method == 'POST':        pname = request.form['pname']

quantity = request.form['quantity']        the_time = datetime.now()        the_time =

the_time.replace(second=0, microsecond=0)        sql = "SELECT * FROM Products WHERE

HOLDERNAME =?"

       stmt = ibm_db.prepare(conn, sql)

ibm_db.bind_param(stmt,1,session['name'])

ibm_db.execute(stmt)        product = ibm_db.fetch_assoc(stmt)

       if product:

         if product['PRODUCTNAME']==pname:

                    return render_template('dashboard/addproduct.html', msg="Product already added! Add a new
product.")

         else:

           sql ="INSERT INTO Products
(PRODUCTNAME,QUANTITY,FROM,TO,DATE,HOLDERNAME) VALUES
(?,?,?,?,?,?);"            prep_stmt = ibm_db.prepare(conn, sql)            ibm_db.bind_param(prep_stmt, 1,

pname)            ibm_db.bind_param(prep_stmt, 2, quantity)            ibm_db.bind_param(prep_stmt, 3, '')

ibm_db.bind_param(prep_stmt, 4, '')            ibm_db.bind_param(prep_stmt, 5, str(the_time))

ibm_db.bind_param(prep_stmt, 6, session['name'])            ibm_db.execute(prep_stmt)            return

render_template('dashboard/addproduct.html', msg="Product added")          else:

           sql ="INSERT INTO Products
(PRODUCTNAME,QUANTITY,FROM,TO,DATE,HOLDERNAME) VALUES
(?,?,?,?,?,?);"            prep_stmt = ibm_db.prepare(conn, sql)            ibm_db.bind_param(prep_stmt, 1,

pname)            ibm_db.bind_param(prep_stmt, 2, quantity)            ibm_db.bind_param(prep_stmt, 3, '')

ibm_db.bind_param(prep_stmt, 4, '')            ibm_db.bind_param(prep_stmt, 5, str(the_time))

ibm_db.bind_param(prep_stmt, 6, session['name'])            ibm_db.execute(prep_stmt)            return

render_template('dashboard/addproduct.html', msg="Product added")
```

```
@app.route('/productlist') def productlist():
products = []
   sql = "SELECT * FROM Products WHERE HOLDERNAME = ?"
   prep_stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(prep_stmt, 1, session['name'])
ibm_db.execute(prep_stmt)     dictionary = ibm_db.fetch_both(prep_stmt)
while dictionary != False:
     # print ("The Name is : ",  dictionary)
products.append(dictionary)       dictionary =
ibm_db.fetch_both(prep_stmt)     if products:
     return render_template("dashboard/productlist.html", products = products , session = session)
   else:
     return render_template("dashboard/productlist.html")
@app.route('/logout') def logout():
   session.pop('loggedin', None)     session.pop('id', None)
session.pop('email', None)     session.pop('name', None)
return redirect(url_for('home'))
@app.route('/list') def list():   users = []
  sql = "SELECT * FROM Users"   stmt =
ibm_db.exec_immediate(conn, sql)   dictionary =
ibm_db.fetch_both(stmt)   while dictionary != False:
   #      print      ("The      Name      is      :      ",          dictionary)
users.append(dictionary)                                dictionary       =
ibm_db.fetch_both(stmt)
  if users:
   return render_template("list.html", users = users , session = session)   return "No users..."
```

## Products.html

```
<!doctype html>

<html class="no-js" lang="zxx">

<head>

        <meta charset="utf-8">

        <meta http-equiv="x-ua-compatible" content="ie=edge">

        <meta name="description" content="">

        <meta name="viewport" content="width=device-width, initial-scale=1">

  <!-- Bootstrap Css & Js -->

  <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">

  <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js" integrity="sha384-
ka7Sk0Gln4gmtz2MlQnikT1wXgYsOg+OMhuP+IlRH9sENBO0LRn5q+8nbTov4+1p"
crossorigin="anonymous"></script>

        <!-- CSS here -->

        <link href="static/css/mystyle.css" rel="Stylesheet" />

 <style>

  .shadow-demo {     width: 100px;     height:

100px;     background-color: #fff;


  }

  .shadow-demo-1 {     width: 100px;     height:

100px;     background-color: #ccc;

  }

  .shadow-demo-2 {     width: 100px;     height:

100px;     background-color: #000;

  }
```

```
.mask-custom {      background-color: rgba(255, 255, 255, 0.2);      border-
radius: 10;      border: 0;      background-clip: padding-box;      box-shadow:
10px 10px 10px rgba(46, 54, 68, 0.03);
}
.custom-1 {      backdrop-filter: blur(30px);
}
.custom-2 {      backdrop-filter: blur(60px);
}
.custom-3 {      backdrop-filter: blur(40px);
}
.custom-4 {
  backdrop-filter: blur(15px);
}
.custom-5 {      backdrop-filter: blur(5px);
}

.mask-custom-1 {      background-color: rgba(0, 0, 0, 0.2);      border-radius:
20;      border: 0;      background-clip: padding-box;      box-shadow: 10px
10px 10px rgba(46, 54, 68, 0.03);
}
.custom-6 {      backdrop-filter: blur(30px);
}
.custom-7 {      backdrop-filter: blur(60px);
}
.custom-8 {      backdrop-filter: blur(40px);
}
.custom-9 {      backdrop-filter: blur(15px);
}
```

```
    .custom-10 {       backdrop-filter: blur(5px);
    }
  </style>
    <!-- JS here -->
    {% block head %} {% endblock %}
    <script>       window.watsonAssistantChatOptions = {        integrationID: "633fc278-0dda-417b-9c10-
bd2f300b411a", // The ID of this integration.        region: "jp-tok", // The region your integration is hosted in.
        serviceInstanceID: "b7ec50cd-af28-4bb0-aa53-52dc00c34d4e", // The ID of your service instance.
        onLoad: function(instance) { instance.render(); }
      };
      setTimeout(function(){        const
t=document.createElement('script');
        t.src="https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +
(window.watsonAssistantChatOptions.clientVersion || 'latest') +
"/WatsonAssistantChatEntry.js";        document.head.appendChild(t);
      });
    </script>
</head>
<body>
  <nav class="navbar navbar-expand-lg navbar-light bg-light">
    <div class="container-fluid">
      <a class="navbar-brand" href="/">IMS</a>
      <button class="navbar-toggler" type="button" data-bs-toggle="offcanvas" data-bstarget="#offcanvasNavbar"
aria-controls="offcanvasNavbar">
        <span class="navbar-toggler-icon"></span>
      </button>
      <div class="offcanvas offcanvas-end" tabindex="-1" id="offcanvasNavbar"
arialabelledby="offcanvasNavbarLabel">
        <div class="offcanvas-header">
          <h5 class="offcanvas-title" id="offcanvasNavbarLabel">Offcanvas</h5>
```

```
      <button type="button" class="btn-close text-reset" data-bs-dismiss="offcanvas" arialabel="Close"></button>
    </div>
    <div class="offcanvas-body">
      <ul class="navbar-nav justify-content-end flex-grow-1 pe-3">
        <li class="nav-item">
          <a class="nav-link" aria-current="page" href="/">Home</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="/register" >Register</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="/login">Login</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="/list" >List</a>
        </li>
      </ul>
    </div>
  </div>
 </nav>
<!--
  <nav class="navbar navbar-light bg-light fixed-top">
    <div class="container-fluid">
       Page navigation
        <a class="nav-link" aria-current="page" href="/">Home</a>
        <a class="nav-link" href="/register" >Register</a>
        <a class="nav-link" href="/login">Login</a>
        <a class="nav-link" href="/logout">Logout</a>
        <a class="nav-link" href="/list" >List</a>
```

```
            <button class="navbar-toggler" type="button" data-bs-toggle="offcanvas" databs-
target="#offcanvasNavbar" aria-controls="offcanvasNavbar">

        <span class="navbar-toggler-icon"></span>

       </button>

       <div class="offcanvas offcanvas-end" tabindex="-1" id="offcanvasNavbar"
arialabelledby="offcanvasNavbarLabel">

        <div class="offcanvas-header">

          <h5 class="offcanvas-title" id="offcanvasNavbarLabel">Offcanvas</h5>

          <button type="button" class="btn-close text-reset" data-bs-dismiss="offcanvas"
arialabel="Close"></button>

        </div>

        <div class="offcanvas-body">

          <ul class="navbar-nav justify-content-end flex-grow-1 pe-3">

            <li class="nav-item">

              <a class="nav-link" aria-current="page" href="/">Home</a>

            </li>

            <li class="nav-item">

              <a class="nav-link" href="/register" >Register</a>

            </li>

            <li class="nav-item">

              <a class="nav-link" href="/login">Login</a>

            </li>

            <li class="nav-item">

              <a class="nav-link" href="/logout">Logout</a>

            </li>

            <li class="nav-item">

              <a class="nav-link" href="/list" >List</a>

            </li>

             <li class="nav-item dropdown">
```

```
            <a class="nav-link dropdown-toggle" href="#" id="offcanvasNavbarDropdown" role="button" data-bs-toggle="dropdown" aria-expanded="false">
              Dropdown
            </a>
            <ul class="dropdown-menu" aria-labelledby="offcanvasNavbarDropdown">
              <li><a class="dropdown-item" href="#">Action</a></li>
              <li><a class="dropdown-item" href="#">Another action</a></li>
              <li>
                <hr class="dropdown-divider">
              </li>
              <li><a class="dropdown-item" href="#">Something else here</a></li>
            </ul>
          </li>
        </ul>
        <form class="d-flex">
          <input class="form-control me-2" type="search" placeholder="Search" arialabel="Search">
          <button class="btn btn-outline-success" type="submit">Search</button>
        </form>
      </div>
    </div>
  </div>
 </nav> -->
  {% block body %} {% endblock %}
 </body>
</html>
```

## Add product.html

```
<!DOCTYPE html >

   <head>

      <meta charset="utf-8">

      <meta http-equiv="x-ua-compatible" content="ie=edge">

      <meta name="description" content="">

      <meta name="viewport" content="width=device-width, initial-scale=1">

         <!-- Bootstrap Css & Js -->

      <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet"
integrity="sha384-
1BmE4kWBq78iYhFldvKuhfTAU6auU8tT94WrHftjDbrCEXSU1oBoqyl2QvZ6jIW3" crossorigin="anonymous">

      <script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js" integrity="sha384-
ka7Sk0Gln4gmtz2MlQnikT1wXgYsOg+OMhuP+IlRH9sENBO0LRn5q+8nbTov4+1p"
crossorigin="anonymous"></script>

      <style>        html,body

      {            height: 100%;              margin: 0;            font-family: 'Segoe UI', Tahoma,

Geneva, Verdana, sans-serif;

      }

      </style>

      <!-- CSS here -->

      <link href="static/css/mystyle.css" rel="Stylesheet" />

<body>

   <div style="background-image: url('static/img/Secure login-rafiki.png');backgroundposition: center; background-
repeat: no-repeat; background-size: contain; background-repeat:
no-repeat; height: 100%;">

  <h1 class="display-6" style="text-align: center;">We have sent a confirmation mail to your registerd E-mail.</h1>

      <h1 class="display-6" style="text-align: center;"> Please confirm the mail to continue
Registration.</h1>

   </div>

</body>

</html>
```

## Config.py

```
import datetime import os from dotenv import load_dotenv load_dotenv()

basedir = os.path.abspath(os.path.dirname(__file__))

APP_SETTINGS = os.getenv('APP_SETTINGS', 'config.DevelopmentConfig') class Config():

    EMAIL_CONFIRMATION_SENDER_EMAIL = os.getenv(

        'EMAIL_CONFIRMATION_SENDER_EMAIL')

    EMAIL_CONFIRMATION_SALT = 'email-confirmation'

    EMAIL_CONFIRMATION_TOKEN_MAX_AGE_SECONDS = 300

    JSON_SORT_KEYS = False

    JWT_ACCESS_TOKEN_EXPIRES = datetime.timedelta(minutes=60)

    SECRET_KEY = os.getenv('SECRET_KEY', os.urandom(32))

    SENDGRID_API_KEY = os.getenv('SENDGRID_API_KEY')

    SQLALCHEMY_TRACK_MODIFICATIONS = False     WTF_CSRF_ENABLED = False

class DevelopmentConfig(Config):     DEBUG = True

    JSON_SORT_KEYS = True

    SQLALCHEMY_ECHO = True

    SQLALCHEMY_DATABASE_URI = f'sqlite:///{os.path.join(basedir, "app.db")}' class ProductionConfig(Config):

    DEBUG = False

    SQLALCHEMY_DATABASE_URI = os.getenv('DB_URL')
```

## App.py

```
from turtle import st from flask import Flask, render_template, request, redirect, url_for, session

from markupsafe import escape import ibm_db

conn = ibm_db.connect("DATABASE=bludb;HOSTNAME=54a2f15b-5c0f-46df-
89547e38e612c2bd.c1ogj3sd0tgtu0lqde00.databases.appdomain.cloud;PORT=32733;SECURITY
```

```
=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;UID=lkc93724;PWD=zAzNGa6Da
Nk6xvle","","") import smtplib, ssl ## email.mime subclasses from

email.mime.multipart import MIMEMultipart from email.mime.text

import MIMEText

## The pandas library is only for generating the current date, which is not necessary for sending emails import

pandas as pd from datetime import datetime from flask import Flask app = Flask(__name__)

var_list = [] app.secret_key = 'your secret key'

@app.route('/')

def home():   if not session.get("name"):

       return render_template('home.html')   return

render_template('home.html', session = session)

@app.route('/register') def new_student():

  return render_template('Register.html') @app.route('/addrec',methods =

['POST', 'GET']) def addrec():

  if request.method == 'POST':     fname = request.form['fname']     lname =

request.form['lname']     cname = request.form['cname']     state =

request.form['state']     city = request.form['city']     mobileno =

request.form['mobileno']     emailid = request.form['emailid']     password =

request.form['password']     pincode = request.form['pincode']     sql = "SELECT *

FROM Users WHERE EMAILID =?"

    stmt = ibm_db.prepare(conn, sql)

ibm_db.bind_param(stmt,1,emailid)

ibm_db.execute(stmt)     account =

ibm_db.fetch_assoc(stmt)     if account:       users = []

      sql = "SELECT * FROM Users"       stmt =

ibm_db.exec_immediate(conn, sql)       dictionary =

ibm_db.fetch_both(stmt)       while dictionary != False:
```

```
# print ("The Name is : ", dictionary)
users.append(dictionary)                    dictionary =
ibm_db.fetch_both(stmt)
    return render_template('list.html', msg="You are already a member, please login using your details", users =
users)
  else:
    var_list.append(fname)    var_list.append(lname)
var_list.append(cname)    var_list.append(state)
var_list.append(city)    var_list.append(mobileno)
var_list.append(emailid)    var_list.append(password)
var_list.append(pincode)
    bodytemp = r"D:\IBM\GUIDED PROJECT\INVENTORY MANAGEMENT SYSTEM FOR RETAILERS\SPRINT
2\templates\email.html"
    with open(bodytemp, "r", encoding='utf-8') as f:
      html= f.read()
    # Set up the email addresses and password. Please replace below with your email address and password
email_from = 'padhu10a@gmail.com'    epassword = 'rbjibzkssszsbrjo'    email_to = emailid
    # Generate today's date to be included in the email Subject    date_str =
pd.Timestamp.today().strftime('%Y-%m-%d')
    # Create a MIMEMultipart class, and set up the From, To, Subject fields    email_message =
MIMEMultipart()    email_message['From'] = email_from

    email_message['To'] = email_to    email_message['Subject'] = f'Report email -
{date_str}'
  # Attach the html doc defined earlier, as a MIMEText html content type to the MIME message
email_message.attach(MIMEText(html, "html"))
    # Convert it as a string    email_string = email_message.as_string()    # Connect to the Gmail SMTP
server and Send Email    context = ssl.create_default_context()    with
smtplib.SMTP_SSL("smtp.gmail.com", 465, context=context) as server:
```

```
        server.login(email_from,  epassword)                server.sendmail(email_from,
email_to, email_string)      return render_template('notify.html')
@app.route('/confirm') def confirnation():
  insert_sql = "INSERT INTO Users (FIRSTNAME, LASTNAME, COMPANYNAME,
STATE, CITY, MOBILENO, EMAILID, PASSWORD, PINCODE)  VALUES
(?,?,?,?,?,?,?,?,?)"    prep_stmt = ibm_db.prepare(conn, insert_sql)
ibm_db.bind_param(prep_stmt, 1, var_list[0])
ibm_db.bind_param(prep_stmt, 2, var_list[1])
ibm_db.bind_param(prep_stmt, 3, var_list[2])
ibm_db.bind_param(prep_stmt, 4, var_list[3])
ibm_db.bind_param(prep_stmt, 5, var_list[4])
ibm_db.bind_param(prep_stmt, 6, var_list[5])
ibm_db.bind_param(prep_stmt, 7, var_list[6])
ibm_db.bind_param(prep_stmt, 8, var_list[7])
ibm_db.bind_param(prep_stmt, 9, var_list[8])
ibm_db.execute(prep_stmt)    return render_template('confirm.html')
@app.route('/login', methods =['POST', 'GET']) def login():     msg = ''
if request.method == 'POST' and 'email' in request.form and
'password' in request.form:
       email = request.form['email']        password =
request.form['password']
     sql = "SELECT * FROM Users WHERE EMAILID =? AND PASSWORD =?"
       stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(stmt,1,email)
ibm_db.bind_param(stmt,2,password)
ibm_db.execute(stmt)        account = ibm_db.fetch_assoc(stmt)
if account:
```

```
        session['loggedin'] = True          session['id'] = account['ID']          session['email'] =
account['EMAILID']          session['name'] = account['FIRSTNAME']          msg = 'Logged in
successfully !'          return render_template('dashboard/dashboard.html', msg = msg)
      else:
        msg = 'Incorrect email / password !'     return
render_template('login.html', msg = msg)
@app.route('/dashboard') def dashboard():
  return render_template('dashboard/dashboard.html')
@app.route('/addproduct') def addproduct():
  return render_template('dashboard/addproduct.html')
@app.route('/movement')
def movement():
   products = []
   sql = "SELECT * FROM Products WHERE HOLDERNAME = ?"
   prep_stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(prep_stmt, 1, session['name'])
ibm_db.execute(prep_stmt)     dictionary = ibm_db.fetch_both(prep_stmt)
while dictionary != False:
     # print ("The Name is : ",  dictionary)
products.append(dictionary)      dictionary =
ibm_db.fetch_both(prep_stmt)     if products:
     return render_template("dashboard/movement.html", products = products , session = session)
   else:
     return render_template("dashboard/movement.html")
@app.route('/moveproc',methods = ['POST', 'GET']) def moveproc():    if
request.method == 'POST':
      pname = request.form['pname']        quantityout =
request.form['quantityout']         tow = request.form['to']
```

```
  insert_sql = "UPDATE products SET QUANTITYOUT = ?, TO = ? WHERE PRODUCTNAME = ? AND HOLDERNAME = ?;"
  prep_stmt = ibm_db.prepare(conn, insert_sql)    ibm_db.bind_param(prep_stmt,
1,quantityout)    ibm_db.bind_param(prep_stmt, 2, tow)    ibm_db.bind_param(prep_stmt, 3,
pname)    ibm_db.bind_param(prep_stmt, 4, session['name'])    ibm_db.execute(prep_stmt)

  products = []
  sql = "SELECT * FROM Products WHERE HOLDERNAME = ?"
  prep_stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(prep_stmt, 1, session['name'])
ibm_db.execute(prep_stmt)    dictionary = ibm_db.fetch_both(prep_stmt)
while dictionary != False:
     # print ("The Name is : ",  dictionary)
products.append(dictionary)       dictionary =
ibm_db.fetch_both(prep_stmt)
  return render_template('dashboard/movement.html', msg = "Product movement noted!", products =
products) @app.route('/report') def report():
 return render_template('dashboard/report.html')
@app.route('/stockupdate') def stock():
products = []
   sql = "SELECT * FROM Products WHERE HOLDERNAME = ?"
   prep_stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(prep_stmt, 1, session['name'])
ibm_db.execute(prep_stmt)     dictionary = ibm_db.fetch_both(prep_stmt)
while dictionary != False:
     # print ("The Name is : ",  dictionary)
products.append(dictionary)       dictionary =
ibm_db.fetch_both(prep_stmt)     if products:
     return render_template("dashboard/stockupdate.html", products = products , session = session)
   else:
```

```
    return render_template("dashboard/stockupdate.html")
@app.route('/proc_delete', methods = ['POST', 'GET']) def proc_delete():
        id = request.args.get('pid')
        delete_sql = "DELETE FROM products WHERE ID = ? AND HOLDERNAME = ?;"
        prep_stmt = ibm_db.prepare(conn, delete_sql)
ibm_db.bind_param(prep_stmt, 1, id)          ibm_db.bind_param(prep_stmt, 2,
session['name'])          ibm_db.execute(prep_stmt)          products = []
        sql = "SELECT * FROM Products WHERE HOLDERNAME = ?"
        prep_stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(prep_stmt, 1, session['name'])
ibm_db.execute(prep_stmt)          dictionary = ibm_db.fetch_both(prep_stmt)
while dictionary != False:
          # print ("The Name is : ",  dictionary)
products.append(dictionary)          dictionary =
ibm_db.fetch_both(prep_stmt)
        return render_template('dashboard/stockupdate.html', msg='Product successfully deleted!' , products =
products)
@app.route('/proc_update', methods = ['POST', 'GET']) def proc_update():
if request.method == 'POST':          pname = request.form['pname']
quantityin = request.form['quantityin']          pid = request.form['pid']
        update_sql = "UPDATE products SET PRODUCTNAME = ?, QUANTITYIN = ?
WHERE ID = ? AND HOLDERNAME = ?;"
        prep_stmt = ibm_db.prepare(conn, update_sql)
ibm_db.bind_param(prep_stmt, 1, pname)
ibm_db.bind_param(prep_stmt, 2, quantityin)
ibm_db.bind_param(prep_stmt, 3, pid)          ibm_db.bind_param(prep_stmt,
4, session['name'])          ibm_db.execute(prep_stmt)          products = []
        sql = "SELECT * FROM Products WHERE HOLDERNAME = ?"
```

```
        prep_stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(prep_stmt, 1, session['name'])
ibm_db.execute(prep_stmt)          dictionary = ibm_db.fetch_both(prep_stmt)
while dictionary != False:
          # print ("The Name is : ",  dictionary)
products.append(dictionary)            dictionary =
ibm_db.fetch_both(prep_stmt)
        return render_template('dashboard/stockupdate.html', msg='Product successfully updated!' , products =
products)
@app.route('/addproc',methods = ['POST', 'GET']) def addproc():     if request.method ==
'POST':        pname = request.form['pname']        quantity = request.form['quantity']
the_time = datetime.now()        the_time = the_time.replace(second=0, microsecond=0)
sql = "SELECT * FROM Products WHERE HOLDERNAME =?"
      stmt = ibm_db.prepare(conn, sql)        ibm_db.bind_param(stmt,1,session['name'])
ibm_db.execute(stmt)

      product = ibm_db.fetch_assoc(stmt)
      if product:
        if product['PRODUCTNAME']==pname:
         return render_template('dashboard/addproduct.html', msg="Product already added! Add a new product.")
        else:
        sql ="INSERT INTO Products
(PRODUCTNAME,QUANTITYIN,QUANTITYOUT,TO,DATE,HOLDERNAME)
VALUES (?,?,?,?,?,?);"          prep_stmt = ibm_db.prepare(conn, sql)
ibm_db.bind_param(prep_stmt, 1, pname)          ibm_db.bind_param(prep_stmt, 2, quantity)
ibm_db.bind_param(prep_stmt, 3, '')          ibm_db.bind_param(prep_stmt, 4, '')
ibm_db.bind_param(prep_stmt, 5, str(the_time))          ibm_db.bind_param(prep_stmt, 6,
session['name'])          ibm_db.execute(prep_stmt)          return
render_template('dashboard/addproduct.html', msg="Product added")
      else:
```

```
        sql ="INSERT INTO Products
(PRODUCTNAME,QUANTITYIN,QUANTITYOUT,TO,DATE,HOLDERNAME)
VALUES (?,?,?,?,?,?);"          prep_stmt = ibm_db.prepare(conn, sql)

ibm_db.bind_param(prep_stmt, 1, pname)          ibm_db.bind_param(prep_stmt, 2, quantity)

ibm_db.bind_param(prep_stmt, 3, '')          ibm_db.bind_param(prep_stmt, 4, '')

ibm_db.bind_param(prep_stmt, 5, str(the_time))          ibm_db.bind_param(prep_stmt, 6,

session['name'])          ibm_db.execute(prep_stmt)          return

render_template('dashboard/addproduct.html', msg="Product added")   @app.route('/productlist') def

productlist():     products = []

   sql = "SELECT * FROM Products WHERE HOLDERNAME = ?"

   prep_stmt = ibm_db.prepare(conn, sql)

ibm_db.bind_param(prep_stmt, 1, session['name'])

ibm_db.execute(prep_stmt)     dictionary = ibm_db.fetch_both(prep_stmt)

while dictionary != False:

     # print ("The Name is : ",  dictionary)

products.append(dictionary)       dictionary =

ibm_db.fetch_both(prep_stmt)  if products:

     return render_template("dashboard/productlist.html", products = products , session = session)

   else:

     return render_template("dashboard/productlist.html")

@app.route('/logout') def logout():

   session.pop('loggedin', None)     session.pop('id', None)

session.pop('email', None)     session.pop('name', None)

return redirect(url_for('home'))

@app.route('/list') def list():   users = []

  sql = "SELECT * FROM Users"   stmt =

ibm_db.exec_immediate(conn, sql)   dictionary =

ibm_db.fetch_both(stmt)   while dictionary != False:
```

```
    # print ("The Name is : ",  dictionary)
users.append(dictionary)     dictionary =
ibm_db.fetch_both(stmt)  if users:
    return render_template("list.html", users = users , session = session)   return "No users..."
```

## ManageSales.html

```
<html>
    <head>
        <meta charset="utf-8">
        <title>MyFlaskApp</title>
        <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.2.1/css/bootstrap.min.css">
    </head>
    <body>
        {% include 'includes/_navbar.html' %}
        <div class="container mt-4">
            {% include 'includes/_messages.html' %}
            {% block body %}{% endblock %}
        </div>
        <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.2.1/js/bootstrap.min.js"></script>
    </body>
</html>
```

## Addsales.html

```
<html>
    <head>
        <meta charset="utf-8">
        <title>MyFlaskApp</title>
```

```
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.2.1/css/bootstrap.min.css">
  </head>
  <body>
    {% include 'includes/_navbar.html' %}
    <div class="container mt-4">
      {% include 'includes/_messages.html' %}
      {% block body %}{% endblock %}
    </div>
    <script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.2.1/js/bootstrap.min.js"></script>
  </body>
</html>
```

## edit_product.html

```
{% extends 'layout.html' %}
{% block body %}
<h1>Edit Product</h1>
{% from "includes/_formhelpers.html" import render_field %}
<form action="" method="POST">
  <div class="form-group">
    {{ render_field(form.product_id, class_="form-control") }}
  </div>
  <div class="form-group">
    {{ render_field(form.product_cost, class_="form-control") }}
  </div>
  <div class="form-group">
    {{ render_field(form.product_num, class_="form-control") }}
  </div>
  <p><input type="submit" value="Update" class="btn btn-primary"></p>
```

```
</form>

{% endblock %}
```

## product_movement.html

```
{% extends 'layout.html' %}

{% block body %}

    <h1>Product Movements</h1>

    <a class="btn btn-success" href="/add_product_movements">Add Product
Movements</a>

    <hr>

    <table class="table table-striped">

        <thead>

            <tr>

                <th>Movement ID</th>

                <th>Time</th>

                <th>From Location</th>

                <th>To Location</th>

                <th>Product ID</th>

                <th>Quantity</th>

            </tr>

        </thead>

        <tbody>

                {% for movement in movements %}

               <tr>

                <td>{{movement.MOVEMENT_ID}}</td>

                <td>{{movement.TIME}}</td>

                <td>{{movement.FROM_LOCATION}}</td>

                <td>{{movement.TO_LOCATION}}</td>
```

```
            <td>{{movement.PRODUCT_ID}}</td>                <td>{{movement.QTY}}</td>

            <!--<td><a href="edit_product_movement/{{movement.MOVEMENT_ID}}" class="btn btn-primary pull-right">Edit</a></td>-->

            <td>

                <form action="{{url_for('delete_product_movements', id=movement.MOVEMENT_ID)}}" method="POST">

                  <input type="hidden" name="method" value="DELETE">

                  <input type="submit" value="Delete" class="btn btn-danger">

                </form>

            </td>

           </tr>

           {% endfor %}

       </tbody>

    </table>

{% endblock %}
```

## app.py

```
from flask import Flask, render_template, flash, redirect, url_for, session, request, logging from flask_mysqldb

import MySQL

from wtforms import Form, StringField, TextAreaField, PasswordField, validators, SelectField, IntegerField

import ibm_db from passlib.hash import sha256_crypt from functools import wraps import win32api

from sendgrid import * #creating an app instance app = Flask(__name__)

conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=;PORT=;SECURITY=SSL;SSL ServerCertificate=DigiCertGlobalRootCA.crt;UID=;PWD=;","","")

#Index @app.route('/') def index():     return

render_template('home.html')

#Products @app.route('/products') def

products():
```

```
   sql = "SELECT * FROM products"     stmt =
ibm_db.prepare(conn, sql)     result=ibm_db.execute(stmt)
products=[]     row = ibm_db.fetch_assoc(stmt)
while(row):
       products.append(row)        row =
ibm_db.fetch_assoc(stmt)     products=tuple(products)
#print(products)     if result>0:
       return render_template('products.html', products = products)
   else:
       msg='No products found'        return render_template('products.html',
msg=msg)
#Locations @app.route('/locations') def
locations():
   sql = "SELECT * FROM locations"     stmt =
ibm_db.prepare(conn, sql)     result=ibm_db.execute(stmt)
locations=[]

   row = ibm_db.fetch_assoc(stmt)     while(row):
       locations.append(row)        row =
ibm_db.fetch_assoc(stmt)     locations=tuple(locations)
#print(locations)     if result>0:
       return render_template('locations.html', locations = locations)
   else:
       msg='No locations found'        return render_template('locations.html',
msg=msg)
#Product Movements
@app.route('/product_movements') def
product_movements():
```

```
    sql = "SELECT * FROM productmovements"     stmt =
ibm_db.prepare(conn, sql)     result=ibm_db.execute(stmt)
movements=[]     row = ibm_db.fetch_assoc(stmt)     while(row):
        movements.append(row)        row =
ibm_db.fetch_assoc(stmt)
movements=tuple(movements)     #print(movements)
    if result>0:
        return render_template('product_movements.html', movements = movements)
    else:
        msg='No product movements found'        return
render_template('product_movements.html', msg=msg) #Register Form Class class
RegisterForm(Form):
    name = StringField('Name', [validators.Length(min=1, max=50)])     username =
StringField('Username', [validators.Length(min=1, max=25)])     email = StringField('Email',
[validators.length(min=6, max=50)])     password = PasswordField('Password', [
validators.DataRequired(),        validators.EqualTo('confirm', message='Passwords do not match')
    ])
    confirm = PasswordField('Confirm Password')
#user register
@app.route('/register', methods=['GET','POST']) def register():
    form = RegisterForm(request.form)     if request.method == 'POST' and
form.validate():
        name = form.name.data        email = form.email.data        username = form.username.data
password = sha256_crypt.encrypt(str(form.password.data))      sql1="INSERT INTO users(name, email,
username, password) VALUES(?,?,?,?)"        stmt1 = ibm_db.prepare(conn, sql1)
ibm_db.bind_param(stmt1,1,name)        ibm_db.bind_param(stmt1,2,email)
ibm_db.bind_param(stmt1,3,username)        ibm_db.bind_param(stmt1,4,password)
ibm_db.execute(stmt1)
```

```
    #for flash messages taking parameter and the category of message to be flashed        flash("You are now
registered and can log in", "success")
        #when registration is successful redirect to home
    return redirect(url_for('login'))     return
render_template('register.html', form = form)
#User login
@app.route('/login', methods = ['GET', 'POST']) def login():     if
request.method == 'POST':        #Get form fields        username =
request.form['username']        password_candidate =
request.form['password']     sql1="Select * from users where username =
?"        stmt1 = ibm_db.prepare(conn, sql1)
ibm_db.bind_param(stmt1,1,username)
result=ibm_db.execute(stmt1)        d=ibm_db.fetch_assoc(stmt1)
    if result > 0:            #Get the stored hash
data = d
        password  =  data['PASSWORD']                #compare  passwords                    if
sha256_crypt.verify(password_candidate, password):
            #Passed                session['logged_in'] = True
session['username'] = username        flash("you are now logged
in","success")                return redirect(url_for('dashboard'))
        else:
            error = 'Invalid Login'                return render_template('login.html',
error=error)
        #Close connection
        cur.close()        else:
        error = 'Username not found'          return render_template('login.html',
error=error)     return render_template('login.html')
```

```
#check if user logged in def is_logged_in(f):
@wraps(f)     def wrap(*args, **kwargs):        if
'logged_in' in session:            return f(*args, **kwargs)
        else:
            flash('Unauthorized, Please login','danger')            return
redirect(url_for('login'))     return wrap
#Logout
@app.route('/logout') @is_logged_in def logout():     session.clear()
flash("You are now logged out", "success")     return
redirect(url_for('login'))
#Dashboard
@app.route('/dashboard') @is_logged_in def
dashboard():
    sql2="SELECT product_id, location_id, qty FROM product_balance"     sql3="SELECT
location_id FROM locations"     stmt2 = ibm_db.prepare(conn, sql2)

    stmt3 = ibm_db.prepare(conn, sql3)
result=ibm_db.execute(stmt2)     ibm_db.execute(stmt3)
products=[]     row = ibm_db.fetch_assoc(stmt2)
while(row):
        products.append(row)        row =
ibm_db.fetch_assoc(stmt2)     products=tuple(products)
locations=[]     row2 = ibm_db.fetch_assoc(stmt3)
while(row2):
        locations.append(row2)        row2 =
ibm_db.fetch_assoc(stmt3)     locations=tuple(locations)
locs = []     for i in locations:
        locs.append(list(i.values())[0])     if result>0:
        return render_template('dashboard.html', products = products, locations = locs)
```

```
    else:
        msg='No products found'        return render_template('dashboard.html',
msg=msg)
#Product Form Class class ProductForm(Form):
    product_id = StringField('Product ID', [validators.Length(min=1, max=200)])     product_cost =
StringField('Product Cost', [validators.Length(min=1, max=200)])     product_num = StringField('Product Num',
[validators.Length(min=1, max=200)])
#Add Product
@app.route('/add_product', methods=['GET', 'POST'])
@is_logged_in def add_product():
    form = ProductForm(request.form)     if request.method == 'POST' and
form.validate():
        product_id = form.product_id.data        product_cost = form.product_cost.data        product_num =
form.product_num.data       sql1="INSERT INTO products(product_id, product_cost, product_num) VALUES(?,?,?)"
stmt1 = ibm_db.prepare(conn, sql1)        ibm_db.bind_param(stmt1,1,product_id)
ibm_db.bind_param(stmt1,2,product_cost)        ibm_db.bind_param(stmt1,3,product_num)
ibm_db.execute(stmt1)     flash("Product Added", "success")    return redirect(url_for('products'))     return
render_template('add_product.html', form=form)
#Edit Product
@app.route('/edit_product/<string:id>', methods=['GET', 'POST'])
@is_logged_in def edit_product(id):
    sql1="Select * from products where product_id = ?"     stmt1 =
ibm_db.prepare(conn, sql1)        ibm_db.bind_param(stmt1,1,id)
result=ibm_db.execute(stmt1)     product=ibm_db.fetch_assoc(stmt1)
print(product)     #Get form     form = ProductForm(request.form)

 #populate product form fields     form.product_id.data = product['PRODUCT_ID']
form.product_cost.data = str(product['PRODUCT_COST'])     form.product_num.data
= str(product['PRODUCT_NUM'])     if request.method == 'POST' and form.validate():
```

```
product_id = request.form['product_id']        product_cost =
request.form['product_cost']        product_num = request.form['product_num']
        sql2="UPDATE products SET product_id=?,product_cost=?,product_num=? WHERE product_id=?"        stmt2 =
ibm_db.prepare(conn, sql2)            ibm_db.bind_param(stmt2,1,product_id)
ibm_db.bind_param(stmt2,2,product_cost)        ibm_db.bind_param(stmt2,3,product_num)
ibm_db.bind_param(stmt2,4,id)        ibm_db.execute(stmt2)        flash("Product Updated", "success")        return
redirect(url_for('products'))     return render_template('edit_product.html', form=form)
#Delete Product
@app.route('/delete_product/<string:id>', methods=['POST'])
@is_logged_in def delete_product(id):
    sql2="DELETE FROM products WHERE product_id=?"
    stmt2            =            ibm_db.prepare(conn,            sql2)
ibm_db.bind_param(stmt2,1,id)        ibm_db.execute(stmt2)
flash("Product     Deleted",     "success")                    return
redirect(url_for('products'))   #Location    Form    Class    class
LocationForm(Form):
    location_id = StringField('Location ID', [validators.Length(min=1, max=200)])
#Add Location
@app.route('/add_location', methods=['GET', 'POST'])
@is_logged_in def add_location():
    form = LocationForm(request.form)     if request.method == 'POST' and
form.validate():        location_id = form.location_id.data        sql2="INSERT into
locations VALUES(?)"        stmt2 = ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,location_id)        ibm_db.execute(stmt2)
flash("Location Added", "success")        return redirect(url_for('locations'))
return render_template('add_location.html', form=form)
#Edit Location
@app.route('/edit_location/<string:id>', methods=['GET', 'POST'])
```

```
@is_logged_in def edit_location(id):
    sql2="SELECT * FROM locations where location_id = ?"    stmt2 =
ibm_db.prepare(conn, sql2)      ibm_db.bind_param(stmt2,1,id)
result=ibm_db.execute(stmt2)    location=ibm_db.fetch_assoc(stmt2)
  #Get form    form = LocationForm(request.form)
print(location)

#populate article form fields    form.location_id.data =
location['LOCATION_ID']    if request.method == 'POST' and form.validate():
    location_id = request.form['location_id']      sql2="UPDATE locations SET location_id=?
WHERE location_id=?"      stmt2 = ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,location_id)      ibm_db.bind_param(stmt2,2,id)
ibm_db.execute(stmt2)      flash("Location Updated", "success")      return
redirect(url_for('locations'))    return render_template('edit_location.html', form=form)
#Delete Location
@app.route('/delete_location/<string:id>', methods=['POST'])
@is_logged_in def delete_location(id):
  sql2="DELETE FROM locations WHERE location_id=?"    stmt2 =
ibm_db.prepare(conn, sql2)      ibm_db.bind_param(stmt2,1,id)
ibm_db.execute(stmt2)    flash("Location Deleted", "success")    return
redirect(url_for('locations'))
#Product Movement Form Class class
ProductMovementForm(Form):
  from_location = SelectField('From Location', choices=[])    to_location =
SelectField('To Location', choices=[])    product_id = SelectField('Product ID',
choices=[])    qty = IntegerField('Quantity') class CustomError(Exception):

  pass
#Add Product Movement
```

```
@app.route('/add_product_movements', methods=['GET', 'POST'])
@is_logged_in def add_product_movements():
   form = ProductMovementForm(request.form)     sql2="SELECT
product_id FROM products"     sql3="SELECT location_id FROM
locations"     stmt2 = ibm_db.prepare(conn, sql2)     stmt3 =
ibm_db.prepare(conn, sql3)     result=ibm_db.execute(stmt2)
ibm_db.execute(stmt3)     products=[]     row =
ibm_db.fetch_assoc(stmt2)     while(row):
     products.append(row)      row =
ibm_db.fetch_assoc(stmt2)     products=tuple(products)
locations=[]     row2 = ibm_db.fetch_assoc(stmt3)
while(row2):
       locations.append(row2)        row2 =
ibm_db.fetch_assoc(stmt3)     locations=tuple(locations)
prods = []     for p in products:
       prods.append(list(p.values())[0])        locs = []     for i in
locations:        locs.append(list(i.values())[0])
form.from_location.choices = [(l,l) for l in locs]
form.from_location.choices.append(("Main
Inventory","Main Inventory"))     form.to_location.choices =
[(l,l) for l in locs]
form.to_location.choices.append(("Main Inventory","Main
Inventory"))     form.product_id.choices = [(p,p) for p in
prods]     if request.method == 'POST' and form.validate():
       from_location = form.from_location.data        to_location =
form.to_location.data        product_id = form.product_id.data
qty = form.qty.data        if from_location==to_location:
```

```
        raise CustomError("Please Give different From and To Locations!!")        elif from_location=="Main
Inventory":          sql2="SELECT * from product_balance where location_id=? and product_id=?"          stmt2
= ibm_db.prepare(conn, sql2)              ibm_db.bind_param(stmt2,1,to_location)
ibm_db.bind_param(stmt2,2,product_id)          result=ibm_db.execute(stmt2)
result=ibm_db.fetch_assoc(stmt2)          print("-----------------")          print(result)          print("-----------------")
app.logger.info(result)          if result!=False:              if(len(result))>0:
            Quantity = result["QTY"]                q = Quantity +
qty                sql2="UPDATE product_balance set qty=?
where location_id=? and product_id=?"

            stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,q)
ibm_db.bind_param(stmt2,2,to_location)                ibm_db.bind_param(stmt2,3,product_id)
ibm_db.execute(stmt2)
            sql2="INSERT into productmovements(from_location, to_location, product_id, qty) VALUES(?, ?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,to_location)                ibm_db.bind_param(stmt2,3,product_id)
ibm_db.bind_param(stmt2,4,qty)                ibm_db.execute(stmt2)
        else:
          sql2="INSERT into product_balance(product_id, location_id, qty) values(?, ?, ?)"              stmt2 =
ibm_db.prepare(conn, sql2)                ibm_db.bind_param(stmt2,1,product_id)
ibm_db.bind_param(stmt2,2,to_location)              ibm_db.bind_param(stmt2,3,qty)
ibm_db.execute(stmt2)
          sql2="INSERT into productmovements(from_location, to_location, product_id, qty) VALUES(?, ?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)                ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,to_location)              ibm_db.bind_param(stmt2,3,product_id)
ibm_db.bind_param(stmt2,4,qty)              ibm_db.execute(stmt2)

          sql = "select product_num from products where product_id=?"          stmt =
ibm_db.prepare(conn, sql)          ibm_db.bind_param(stmt,1,product_id)
current_num=ibm_db.execute(stmt)          current_num = ibm_db.fetch_assoc(stmt)
```

```
sql2="Update products set product_num=? where product_id=?"          stmt2 =
ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,current_num['PRODUCT_NUM']-qty)
ibm_db.bind_param(stmt2,2,product_id)          ibm_db.execute(stmt2)
alert_num=current_num['PRODUCT_NUM']-qty
        if(alert_num<=0):
            alert("Please update the quantity of the product {}, Atleast {} number of pieces must be added to finish
the pending Product Movements!".format(product_id,-alert_num))              elif to_location=="Main Inventory":
sql2="SELECT * from product_balance where location_id=? and product_id=?"          stmt2 =
ibm_db.prepare(conn, sql2)              ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,product_id)          result=ibm_db.execute(stmt2)
result=ibm_db.fetch_assoc(stmt2)    app.logger.info(result)          if result!=False:              if(len(result))>0:
                Quantity = result["QTY"]                q = Quantity -
qty
                sql2="UPDATE product_balance set qty=? where location_id=? and product_id=?"
                stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,q)
ibm_db.bind_param(stmt2,2,to_location)                ibm_db.bind_param(stmt2,3,product_id)
ibm_db.execute(stmt2)
                sql2="INSERT into productmovements(from_location, to_location, product_id, qty) VALUES(?, ?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,to_location)                ibm_db.bind_param(stmt2,3,product_id)
ibm_db.bind_param(stmt2,4,qty)                ibm_db.execute(stmt2)                flash("Product Movement Added",
"success")                sql = "select product_num from products where product_id=?"                stmt =
ibm_db.prepare(conn, sql)                ibm_db.bind_param(stmt,1,product_id)
current_num=ibm_db.execute(stmt)                current_num = ibm_db.fetch_assoc(stmt)
sql2="Update products set product_num=? where product_id=?"                stmt2 = ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,current_num['PRODUCT_NUM']+qty)
```

```
ibm_db.bind_param(stmt2,2,product_id)                ibm_db.execute(stmt2)                alert_num=q
if(alert_num<=0):
                alert("Please Add {} number of {} to {} warehouse!".format(q,product_id,from_location))
        else:
            raise CustomError("There is no product named {} in
{}.".format(product_id,from_location))                else: #will be executed if both from_location and
to_location are specified          f=0

        sql = "SELECT * from product_balance where location_id=? and product_id=?"          stmt =
ibm_db.prepare(conn, sql)          ibm_db.bind_param(stmt,1,from_location)
ibm_db.bind_param(stmt,2,product_id)          result=ibm_db.execute(stmt)          result =
ibm_db.fetch_assoc(stmt) if result!=False:
            if(len(result))>0:
                Quantity = result["QTY"]                q = Quantity -
qty
                sql2="UPDATE product_balance set qty=? where location_id=? and product_id=?"
                stmt2 = ibm_db.prepare(conn, sql2)                ibm_db.bind_param(stmt2,1,q)
ibm_db.bind_param(stmt2,2,from_location)                ibm_db.bind_param(stmt2,3,product_id)
ibm_db.execute(stmt2)
                f=1                alert_num=q
if(alert_num<=0):
                alert("Please Add {} number of {} to {} warehouse!".format(q,product_id,from_location))
        else:
            raise CustomError("There is no product named {} in
{}.".format(product_id,from_location))
        if(f==1):
            sql = "SELECT * from product_balance where location_id=? and product_id=?"          stmt =
ibm_db.prepare(conn, sql)          ibm_db.bind_param(stmt,1,to_location)
```

```
            ibm_db.bind_param(stmt,2,product_id)
result=ibm_db.execute(stmt)              result =
ibm_db.fetch_assoc(stmt)              if result!=False:
if(len(result))>0:
                Quantity = result["QTY"]                    q = Quantity
+ qty
                sql2="UPDATE product_balance set qty=? where location_id=? and product_id=?"
                stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,q)
ibm_db.bind_param(stmt2,2,to_location)                    ibm_db.bind_param(stmt2,3,product_id)
ibm_db.execute(stmt2)
            else:
                        sql2="INSERT into product_balance(product_id, location_id, qty) values(?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,product_id)
ibm_db.bind_param(stmt2,2,to_location)                    ibm_db.bind_param(stmt2,3,qty)
ibm_db.execute(stmt2)
            sql2="INSERT into productmovements(from_location, to_location, product_id, qty) VALUES(?, ?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,to_location)                    ibm_db.bind_param(stmt2,3,product_id)
ibm_db.bind_param(stmt2,4,qty)              ibm_db.execute(stmt2)

   flash("Product Movement Added", "success")
render_template('products.html',form=form)        return
redirect(url_for('product_movements'))     return
render_template('add_product_movements.html', form=form)
#Delete Product Movements
@app.route('/delete_product_movements/<string:id>', methods=['POST'])
@is_logged_in def delete_product_movements(id):
   sql2="DELETE FROM productmovements WHERE movement_id=?"
```

```
    stmt2 = ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,id)     ibm_db.execute(stmt2)
flash("Product Movement Deleted", "success")     return
redirect(url_for('product_movements')) if __name__ == '__main__':
app.secret_key = "secret123"
    #when the debug mode is on, we do not need to restart the server again and again     app.run(debug=True)
```

## config.py

```
from flask import Flask, render_template, flash, redirect, url_for, session, request, logging from flask_mysqldb
import MySQL
from wtforms import Form, StringField, TextAreaField, PasswordField, validators, SelectField, IntegerField
import ibm_db from passlib.hash import sha256_crypt from functools import wraps import win32api
from sendgrid import * #creating an app instance
app = Flask(__name__)
conn=ibm_db.connect("DATABASE=bludb;HOSTNAME=;PORT=;SECURITY=SSL;SSL
ServerCertificate=DigiCertGlobalRootCA.crt;UID=;PWD=;","","")
#Index @app.route('/') def index():     return
render_template('home.html')
#Products
@app.route('/products') def products():
    sql = "SELECT * FROM products"     stmt =
ibm_db.prepare(conn, sql)     result=ibm_db.execute(stmt)
products=[]     row = ibm_db.fetch_assoc(stmt)
while(row):
        products.append(row)        row =
ibm_db.fetch_assoc(stmt)     products=tuple(products)
#print(products)     if result>0:
```

```
        return render_template('products.html', products = products)
    else:
        msg='No products found'        return render_template('products.html',
msg=msg)
#Locations
@app.route('/locations')
def locations():
    sql = "SELECT * FROM locations"     stmt =
ibm_db.prepare(conn, sql)     result=ibm_db.execute(stmt)
locations=[]     row = ibm_db.fetch_assoc(stmt)
while(row):
        locations.append(row)        row =
ibm_db.fetch_assoc(stmt)     locations=tuple(locations)
#print(locations)     if result>0:
        return render_template('locations.html', locations = locations)
    else:
        msg='No locations found'        return render_template('locations.html',
msg=msg)
#Product Movements @app.route('/product_movements')
def product_movements():
    sql = "SELECT * FROM productmovements"     stmt =
ibm_db.prepare(conn, sql)     result=ibm_db.execute(stmt)
movements=[]     row = ibm_db.fetch_assoc(stmt)     while(row):
        movements.append(row)        row =
ibm_db.fetch_assoc(stmt)
movements=tuple(movements)
    #print(movements)
    if result>0:
```

```
        return render_template('product_movements.html', movements = movements)
    else:
        msg='No product movements found'        return
render_template('product_movements.html', msg=msg)
#Register Form Class class RegisterForm(Form):
    name = StringField('Name', [validators.Length(min=1, max=50)])     username =
StringField('Username', [validators.Length(min=1, max=25)])     email = StringField('Email',
[validators.length(min=6, max=50)])     password = PasswordField('Password', [
validators.DataRequired(),        validators.EqualTo('confirm', message='Passwords do not match')
    ])
    confirm = PasswordField('Confirm Password')
#user register
@app.route('/register', methods=['GET','POST']) def register():
    form = RegisterForm(request.form)     if request.method == 'POST' and
form.validate():
        name = form.name.data        email = form.email.data        username = form.username.data
password = sha256_crypt.encrypt(str(form.password.data))        sql1="INSERT INTO users(name, email,
username, password) VALUES(?,?,?,?)"        stmt1 = ibm_db.prepare(conn, sql1)
ibm_db.bind_param(stmt1,1,name)        ibm_db.bind_param(stmt1,2,email)
ibm_db.bind_param(stmt1,3,username)

        ibm_db.bind_param(stmt1,4,password)        ibm_db.execute(stmt1)
        #for flash messages taking parameter and the category of message to be flashed        flash("You are
now registered and can log in", "success")              #when registration is successful redirect to home
return redirect(url_for('login'))     return render_template('register.html', form = form)
#User login
@app.route('/login', methods = ['GET', 'POST']) def login():
    if request.method == 'POST':        #Get form fields        username =
request.form['username']        password_candidate =
```

```
request.form['password']        sql1="Select * from users where username
= ?"        stmt1 = ibm_db.prepare(conn, sql1)
ibm_db.bind_param(stmt1,1,username)
result=ibm_db.execute(stmt1)        d=ibm_db.fetch_assoc(stmt1)
        if result > 0:
            #Get the stored hash            data = d
            password = data['PASSWORD']
            #compare passwords            if sha256_crypt.verify(password_candidate,
password):
                #Passed                session['logged_in'] = True
session['username'] = username                flash("you are now logged
in","success")                return redirect(url_for('dashboard'))

            else:
                error = 'Invalid Login'                return render_template('login.html',
error=error)
            #Close connection            cur.close()
else:
            error = 'Username not found'            return
render_template('login.html', error=error)     return
render_template('login.html') #check if user logged in def is_logged_in(f):
@wraps(f)     def wrap(*args, **kwargs):        if 'logged_in' in session:
return f(*args, **kwargs)
        else:
            flash('Unauthorized, Please login','danger')            return
redirect(url_for('login'))     return wrap
#Logout
```

```
@app.route('/logout') @is_logged_in def logout():     session.clear()
flash("You are now logged out", "success")     return
redirect(url_for('login'))
#Dashboard
@app.route('/dashboard')
@is_logged_in def dashboard():
   sql2="SELECT product_id, location_id, qty FROM product_balance"     sql3="SELECT
location_id FROM locations"     stmt2 = ibm_db.prepare(conn, sql2)     stmt3 =
ibm_db.prepare(conn, sql3)     result=ibm_db.execute(stmt2)     ibm_db.execute(stmt3)
products=[]     row = ibm_db.fetch_assoc(stmt2)     while(row):
       products.append(row)        row =
ibm_db.fetch_assoc(stmt2)     products=tuple(products)
locations=[]     row2 = ibm_db.fetch_assoc(stmt3)
while(row2):
       locations.append(row2)        row2 =
ibm_db.fetch_assoc(stmt3)     locations=tuple(locations)
locs = []     for i in locations:
       locs.append(list(i.values())[0])     if result>0:
       return render_template('dashboard.html', products = products, locations = locs)
   else:
       msg='No products found'        return render_template('dashboard.html',
msg=msg)
#Product Form Class
class ProductForm(Form):
   product_id = StringField('Product ID', [validators.Length(min=1, max=200)])     product_cost =
StringField('Product Cost', [validators.Length(min=1, max=200)])     product_num = StringField('Product Num',
[validators.Length(min=1, max=200)])
#Add Product
```

```
@app.route('/add_product', methods=['GET', 'POST'])
@is_logged_in def add_product():
   form = ProductForm(request.form)     if request.method == 'POST' and
form.validate():
       product_id = form.product_id.data        product_cost =
form.product_cost.data        product_num = form.product_num.data
       sql1="INSERT INTO products(product_id, product_cost, product_num) VALUES(?,?,?)"
       stmt1 = ibm_db.prepare(conn, sql1)
ibm_db.bind_param(stmt1,1,product_id)
ibm_db.bind_param(stmt1,2,product_cost)
ibm_db.bind_param(stmt1,3,product_num)        ibm_db.execute(stmt1)
flash("Product Added", "success")        return redirect(url_for('products'))
return render_template('add_product.html', form=form)
#Edit Product
@app.route('/edit_product/<string:id>', methods=['GET', 'POST'])
@is_logged_in def edit_product(id):
   sql1="Select * from products where product_id = ?"     stmt1 =
ibm_db.prepare(conn, sql1)        ibm_db.bind_param(stmt1,1,id)
result=ibm_db.execute(stmt1)     product=ibm_db.fetch_assoc(stmt1)
       print(product)     #Get form     form = ProductForm(request.form) #populate
product form fields     form.product_id.data = product['PRODUCT_ID']
form.product_cost.data = str(product['PRODUCT_COST'])     form.product_num.data
= str(product['PRODUCT_NUM'])     if request.method == 'POST' and form.validate():
product_id = request.form['product_id']        product_cost =
request.form['product_cost']        product_num = request.form['product_num']
       sql2="UPDATE products SET product_id=?,product_cost=?,product_num=? WHERE product_id=?"        stmt2 =
ibm_db.prepare(conn, sql2)            ibm_db.bind_param(stmt2,1,product_id)
ibm_db.bind_param(stmt2,2,product_cost)        ibm_db.bind_param(stmt2,3,product_num)
```

```
ibm_db.bind_param(stmt2,4,id)        ibm_db.execute(stmt2)        flash("Product Updated", "success")        return
redirect(url_for('products'))     return render_template('edit_product.html', form=form)
#Delete Product
@app.route('/delete_product/<string:id>', methods=['POST'])
@is_logged_in def delete_product(id):
sql2="DELETE FROM products WHERE
product_id=?"

   stmt2            =            ibm_db.prepare(conn,            sql2)
ibm_db.bind_param(stmt2,1,id)        ibm_db.execute(stmt2)
flash("Product     Deleted",     "success")                    return
redirect(url_for('products'))
#Location Form Class class LocationForm(Form):
   location_id = StringField('Location ID', [validators.Length(min=1, max=200)])
#Add Location
@app.route('/add_location', methods=['GET', 'POST'])
@is_logged_in def add_location():
   form = LocationForm(request.form)     if request.method == 'POST' and
form.validate():        location_id = form.location_id.data        sql2="INSERT into
locations VALUES(?)"        stmt2 = ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,location_id)        ibm_db.execute(stmt2)
flash("Location Added", "success")        return redirect(url_for('locations'))
return render_template('add_location.html', form=form)
#Edit Location
@app.route('/edit_location/<string:id>', methods=['GET', 'POST'])
@is_logged_in def edit_location(id):
      sql2="SELECT * FROM locations where location_id = ?"     stmt2 =
ibm_db.prepare(conn, sql2)        ibm_db.bind_param(stmt2,1,id)
result=ibm_db.execute(stmt2)     location=ibm_db.fetch_assoc(stmt2)
```

```
    #Get form     form = LocationForm(request.form)
print(location)
    #populate article form fields     form.location_id.data = location['LOCATION_ID'] if
request.method == 'POST' and form.validate():        location_id = request.form['location_id']
sql2="UPDATE locations SET location_id=? WHERE location_id=?"        stmt2 =
ibm_db.prepare(conn, sql2)            ibm_db.bind_param(stmt2,1,location_id)
ibm_db.bind_param(stmt2,2,id)        ibm_db.execute(stmt2)        flash("Location Updated",
"success")        return redirect(url_for('locations'))     return render_template('edit_location.html',
form=form)
#Delete Location
@app.route('/delete_location/<string:id>', methods=['POST'])
@is_logged_in def delete_location(id):
    sql2="DELETE FROM locations WHERE location_id=?"     stmt2 =
ibm_db.prepare(conn, sql2)        ibm_db.bind_param(stmt2,1,id)
ibm_db.execute(stmt2)     flash("Location Deleted", "success")     return
redirect(url_for('locations'))
#Product Movement Form Class
class ProductMovementForm(Form):
    from_location = SelectField('From Location', choices=[])     to_location =
SelectField('To Location', choices=[])     product_id = SelectField('Product ID',
choices=[])     qty = IntegerField('Quantity') class CustomError(Exception):
    pass
#Add Product Movement
@app.route('/add_product_movements', methods=['GET', 'POST'])
@is_logged_in def add_product_movements():
    form = ProductMovementForm(request.form)      sql2="SELECT
product_id FROM products"     sql3="SELECT location_id FROM
locations"     stmt2 = ibm_db.prepare(conn, sql2)     stmt3 =
```

```
ibm_db.prepare(conn, sql3)    result=ibm_db.execute(stmt2)
ibm_db.execute(stmt3)    products=[]    row =
ibm_db.fetch_assoc(stmt2)    while(row):
    products.append(row)        row =
ibm_db.fetch_assoc(stmt2)    products=tuple(products)
locations=[]    row2 = ibm_db.fetch_assoc(stmt3)
while(row2):
    locations.append(row2)        row2 =
ibm_db.fetch_assoc(stmt3)    locations=tuple(locations)
prods = []    for p in products:
    prods.append(list(p.values())[0])        locs = []    for i in
locations:
    locs.append(list(i.values())[0]) form.from_location.choices = [(l,l) for l in locs]
form.from_location.choices.append(("Main Inventory","Main Inventory"))
form.to_location.choices = [(l,l) for l in locs]    form.to_location.choices.append(("Main
Inventory","Main Inventory"))    form.product_id.choices = [(p,p) for p in prods]    if
request.method == 'POST' and form.validate():
    from_location = form.from_location.data        to_location =
form.to_location.data        product_id = form.product_id.data
qty = form.qty.data        if from_location==to_location:
        raise CustomError("Please Give different From and To Locations!!")

    elif from_location=="Main Inventory":            sql2="SELECT * from product_balance where location_id=?
and product_id=?"            stmt2 = ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,to_location)            ibm_db.bind_param(stmt2,2,product_id)
result=ibm_db.execute(stmt2)            result=ibm_db.fetch_assoc(stmt2)            print("-----------------")
print(result)
```

```
        print("-----------------")
app.logger.info(result)          if result!=False:
if(len(result))>0:
            Quantity = result["QTY"]                q = Quantity +
qty
            sql2="UPDATE product_balance set qty=? where location_id=? and product_id=?"
            stmt2 = ibm_db.prepare(conn, sql2)                ibm_db.bind_param(stmt2,1,q)
ibm_db.bind_param(stmt2,2,to_location)              ibm_db.bind_param(stmt2,3,product_id)
ibm_db.execute(stmt2)
            sql2="INSERT into productmovements(from_location, to_location, product_id, qty) VALUES(?, ?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)                ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,to_location)              ibm_db.bind_param(stmt2,3,product_id)
ibm_db.bind_param(stmt2,4,qty)              ibm_db.execute(stmt2)
        else:
          sql2="INSERT into product_balance(product_id, location_id, qty) values(?, ?, ?)"          stmt2 =
ibm_db.prepare(conn, sql2)              ibm_db.bind_param(stmt2,1,product_id)
ibm_db.bind_param(stmt2,2,to_location)          ibm_db.bind_param(stmt2,3,qty)
ibm_db.execute(stmt2)
          sql2="INSERT into productmovements(from_location, to_location, product_id, qty) VALUES(?, ?, ?, ?)"
          stmt2 = ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,from_location)          ibm_db.bind_param(stmt2,2,to_location)
ibm_db.bind_param(stmt2,3,product_id)          ibm_db.bind_param(stmt2,4,qty)
ibm_db.execute(stmt2)          sql = "select product_num from products where product_id=?"
stmt = ibm_db.prepare(conn, sql)          ibm_db.bind_param(stmt,1,product_id)
current_num=ibm_db.execute(stmt)          current_num = ibm_db.fetch_assoc(stmt)
sql2="Update products set product_num=? where product_id=?"          stmt2 =
ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,current_num['PRODUCT_NUM']-qty)
```

```
ibm_db.bind_param(stmt2,2,product_id)          ibm_db.execute(stmt2)
alert_num=current_num['PRODUCT_NUM']-qty
        if(alert_num<=0):
            alert("Please update the quantity of the product {}, Atleast {} number of pieces must be added to finish
the pending Product Movements!".format(product_id,-alert_num))              elif to_location=="Main Inventory":
sql2="SELECT * from product_balance where location_id=? and product_id=?"          stmt2 =
ibm_db.prepare(conn, sql2)              ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,product_id)          result=ibm_db.execute(stmt2)
result=ibm_db.fetch_assoc(stmt2)    app.logger.info(result)          if result!=False:

            if(len(result))>0:
                Quantity = result["QTY"]                q = Quantity -
qty
                sql2="UPDATE product_balance set qty=? where location_id=? and product_id=?"
                stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,q)
ibm_db.bind_param(stmt2,2,to_location)                ibm_db.bind_param(stmt2,3,product_id)
ibm_db.execute(stmt2)
                sql2="INSERT into productmovements(from_location, to_location, product_id, qty) VALUES(?, ?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,to_location)                ibm_db.bind_param(stmt2,3,product_id)
ibm_db.bind_param(stmt2,4,qty)                ibm_db.execute(stmt2)                flash("Product Movement Added",
"success")                sql = "select product_num from products where product_id=?"                stmt =
ibm_db.prepare(conn, sql)                ibm_db.bind_param(stmt,1,product_id)
current_num=ibm_db.execute(stmt)                current_num = ibm_db.fetch_assoc(stmt)
sql2="Update products set product_num=? where product_id=?"                stmt2 = ibm_db.prepare(conn, sql2)
ibm_db.bind_param(stmt2,1,current_num['PRODUCT_NUM']+qty)
ibm_db.bind_param(stmt2,2,product_id)                ibm_db.execute(stmt2)                alert_num=q

                if(alert_num<=0):
                    alert("Please Add {} number of {} to {} warehouse!".format(q,product_id,from_location))
```

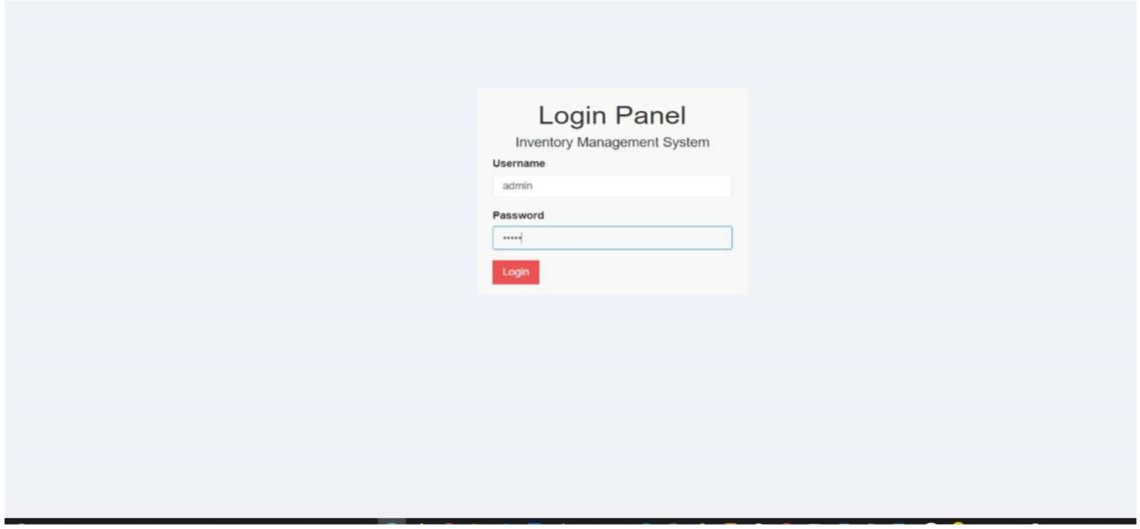
```
        else:
            raise CustomError("There is no product named {} in
{}.".format(product_id,from_location))                else: #will be executed if both from_location and
to_location are specified
        f=0
        sql = "SELECT * from product_balance where location_id=? and product_id=?"          stmt =
ibm_db.prepare(conn, sql)          ibm_db.bind_param(stmt,1,from_location)
ibm_db.bind_param(stmt,2,product_id)          result=ibm_db.execute(stmt)          result =
ibm_db.fetch_assoc(stmt) if result!=False:
            if(len(result))>0:
                Quantity = result["QTY"]                q = Quantity -
qty
                sql2="UPDATE product_balance set qty=? where location_id=? and product_id=?"
                stmt2 = ibm_db.prepare(conn, sql2)                    ibm_db.bind_param(stmt2,1,q)
ibm_db.bind_param(stmt2,2,from_location)                ibm_db.bind_param(stmt2,3,product_id)
ibm_db.execute(stmt2)
                f=1                alert_num=q
if(alert_num<=0):
                    alert("Please Add {} number of {} to {} warehouse!".format(q,product_id,from_location))
        else:
            raise CustomError("There is no product named {} in
{}.".format(product_id,from_location))
        if(f==1):
            sql = "SELECT * from product_balance where location_id=? and product_id=?"              stmt =
ibm_db.prepare(conn, sql)              ibm_db.bind_param(stmt,1,to_location)
ibm_db.bind_param(stmt,2,product_id)              result=ibm_db.execute(stmt)              result =
ibm_db.fetch_assoc(stmt)              if result!=False:                if(len(result))>0:
                    Quantity = result["QTY"]                    q = Quantity
+ qty
```

```
            sql2="UPDATE product_balance set qty=? where location_id=? and product_id=?"
            stmt2 = ibm_db.prepare(conn, sql2)                ibm_db.bind_param(stmt2,1,q)
ibm_db.bind_param(stmt2,2,to_location)              ibm_db.bind_param(stmt2,3,product_id)
ibm_db.execute(stmt2)
        else:
                sql2="INSERT into product_balance(product_id, location_id, qty) values(?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)              ibm_db.bind_param(stmt2,1,product_id)
ibm_db.bind_param(stmt2,2,to_location)              ibm_db.bind_param(stmt2,3,qty)
ibm_db.execute(stmt2)
        sql2="INSERT into productmovements(from_location, to_location, product_id, qty) VALUES(?, ?, ?, ?)"
stmt2 = ibm_db.prepare(conn, sql2)              ibm_db.bind_param(stmt2,1,from_location)
ibm_db.bind_param(stmt2,2,to_location)              ibm_db.bind_param(stmt2,3,product_id)
ibm_db.bind_param(stmt2,4,qty)              ibm_db.execute(stmt2)    flash("Product Movement Added",
"success")       render_template('products.html',form=form)       return redirect(url_for('product_movements'))
return render_template('add_product_movements.html', form=form)
#Delete Product Movements
@app.route('/delete_product_movements/<string:id>', methods=['POST'])
@is_logged_in def delete_product_movements(id):
  sql2="DELETE FROM productmovements WHERE movement_id=?"
  stmt2 = ibm_db.prepare(conn, sql2)       ibm_db.bind_param(stmt2,1,id)
ibm_db.execute(stmt2)

  flash("Product Movement Deleted", "success")    return
redirect(url_for('product_movements')) if __name__ == '__main__':
app.secret_key = "secret123"
  #when the debug mode is on, we do not need to restart the server again and again    app.run(debug=True)
```

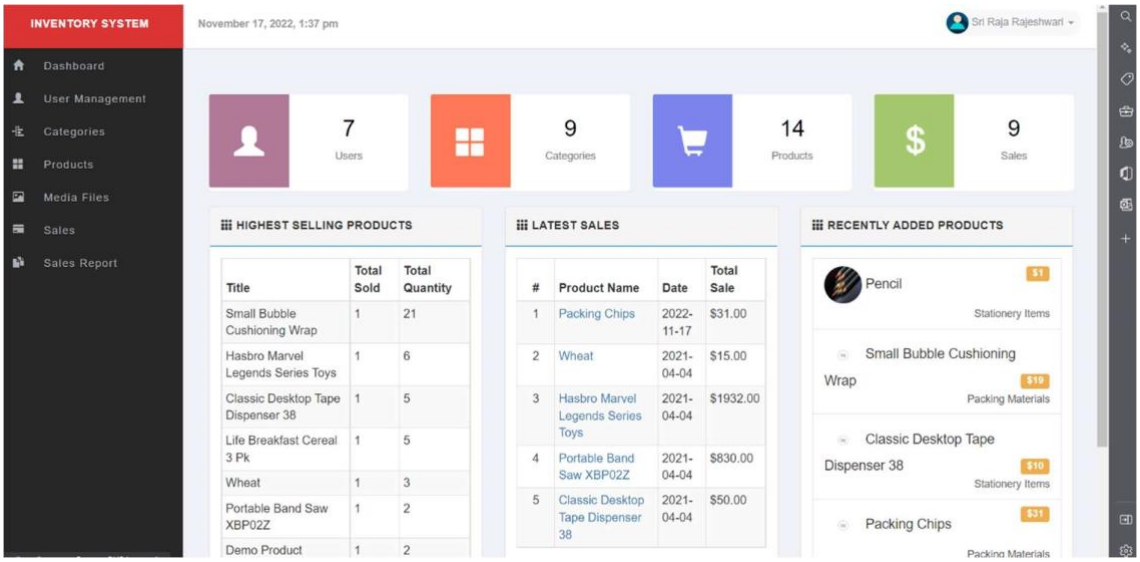
# 7.4 Outputs

As an admin, I can login and manage the inventory

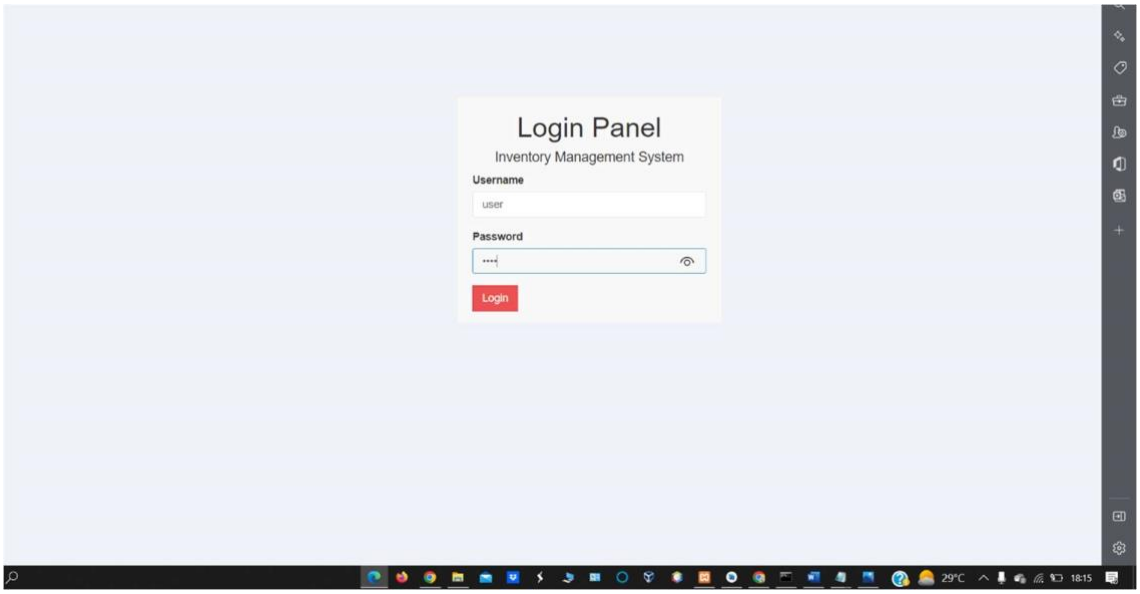



DASHBOARD

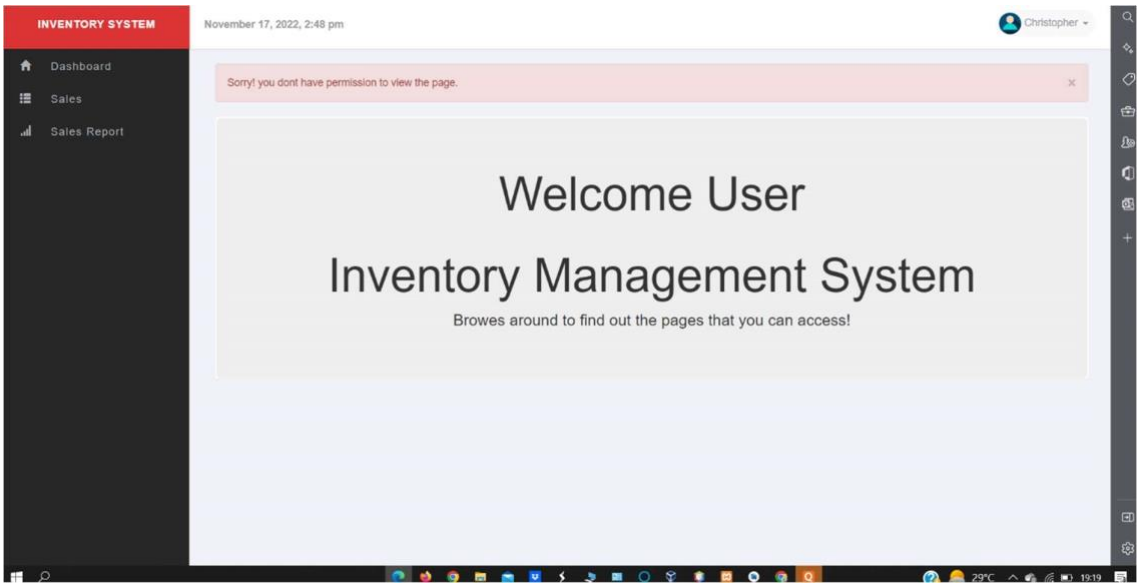
I have successfully login to the next page



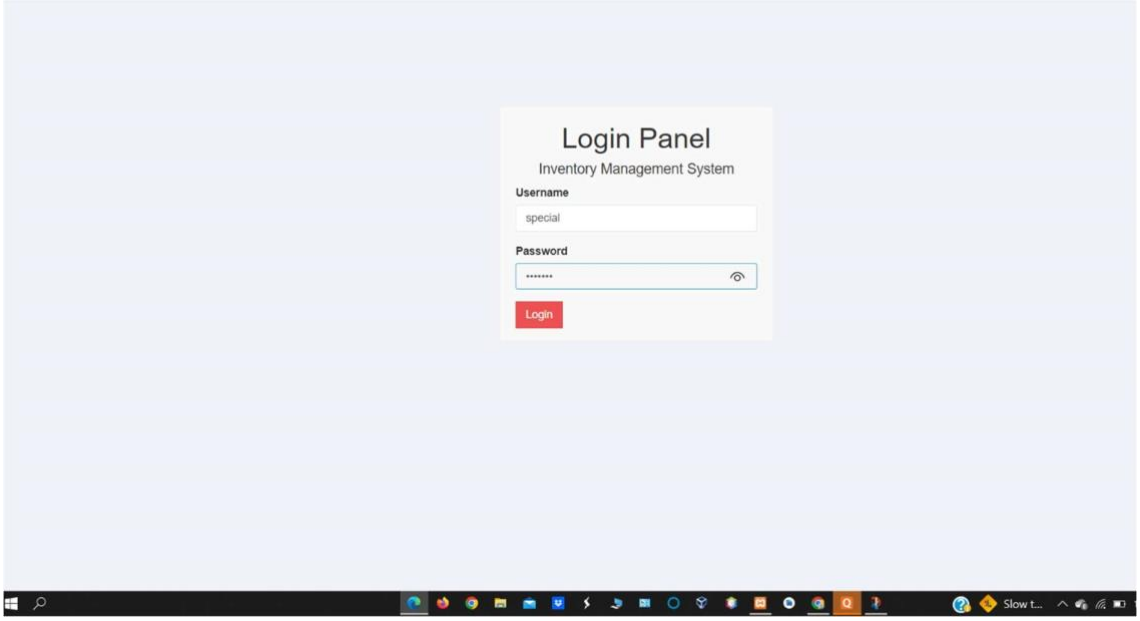

We can login for user account also

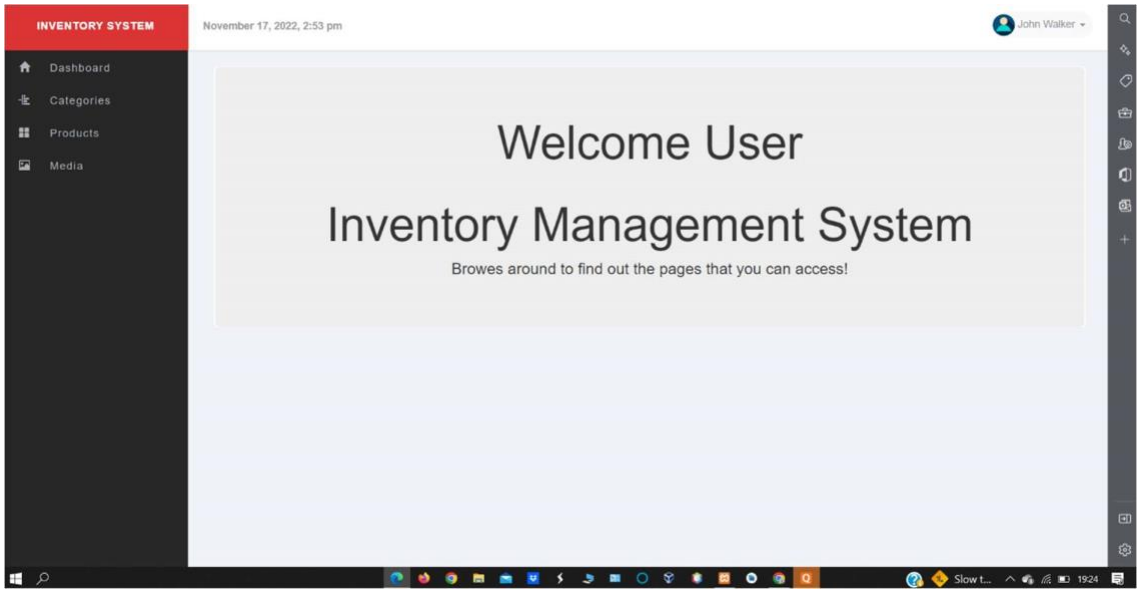



User have their respective roles

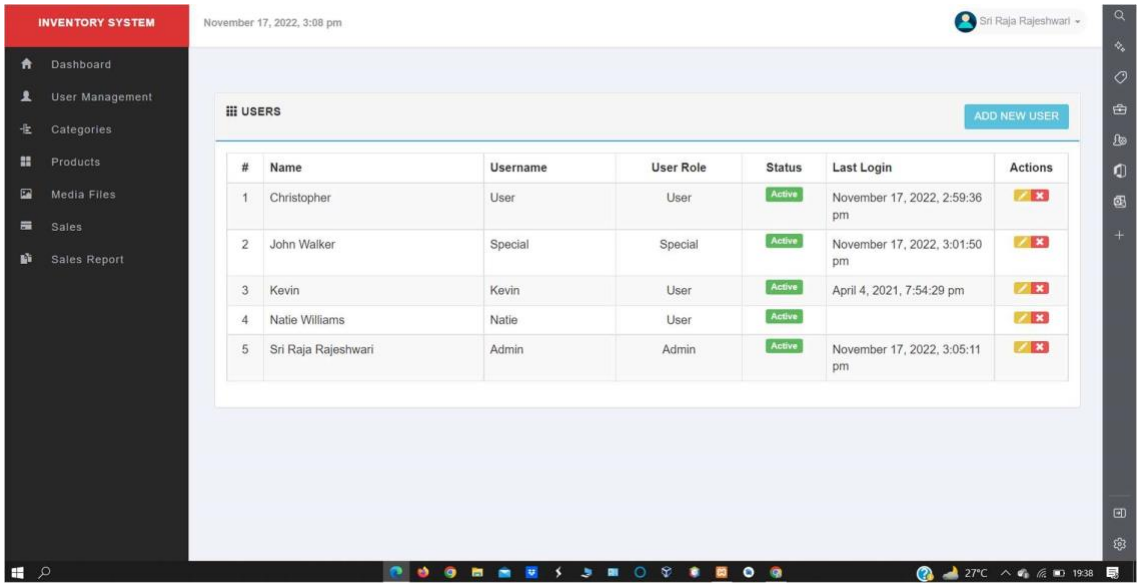



Special user have only access to products and media

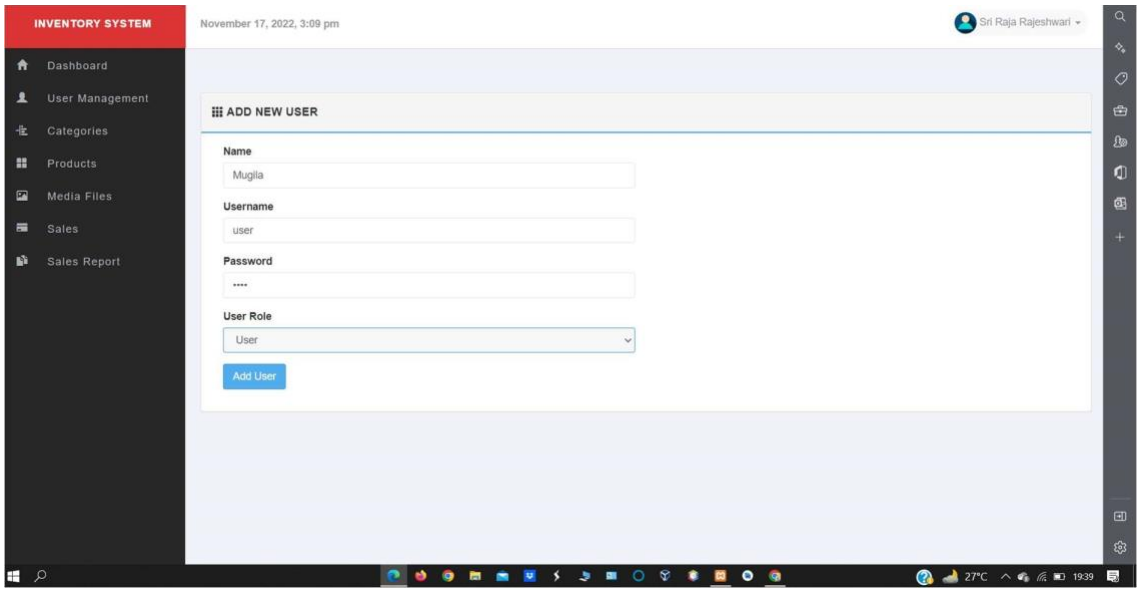


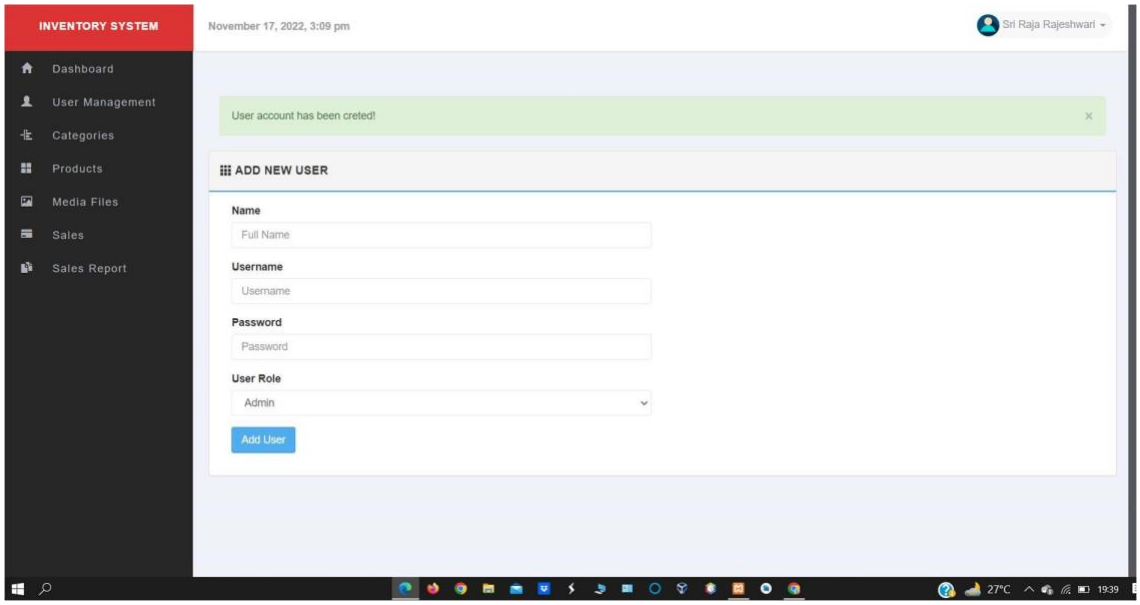

As an admin, I can manage and add users



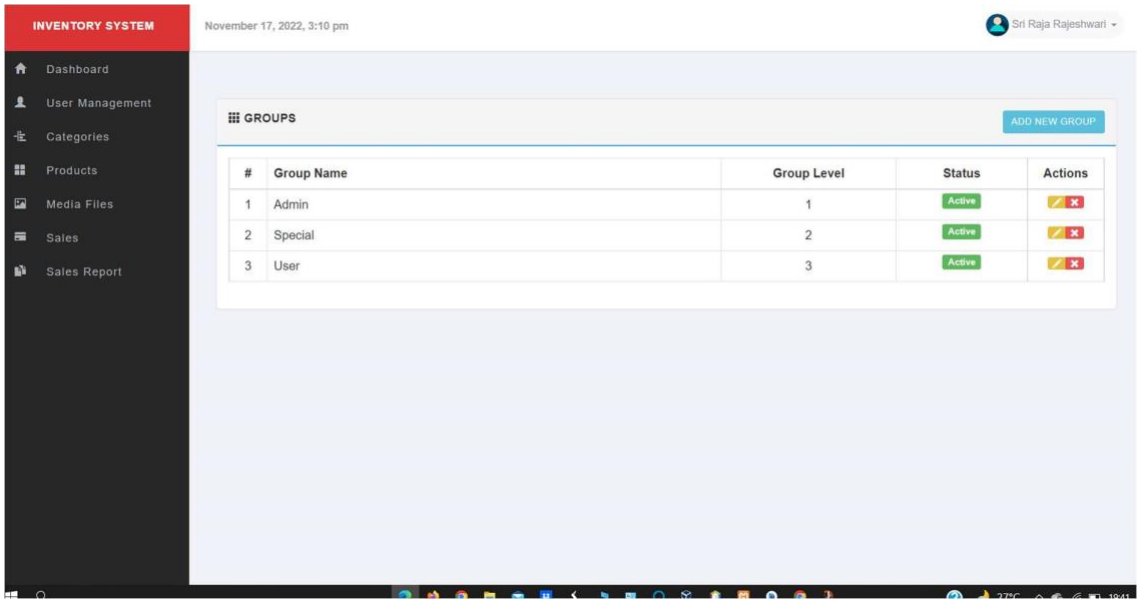

Adding new users by giving correct credentials

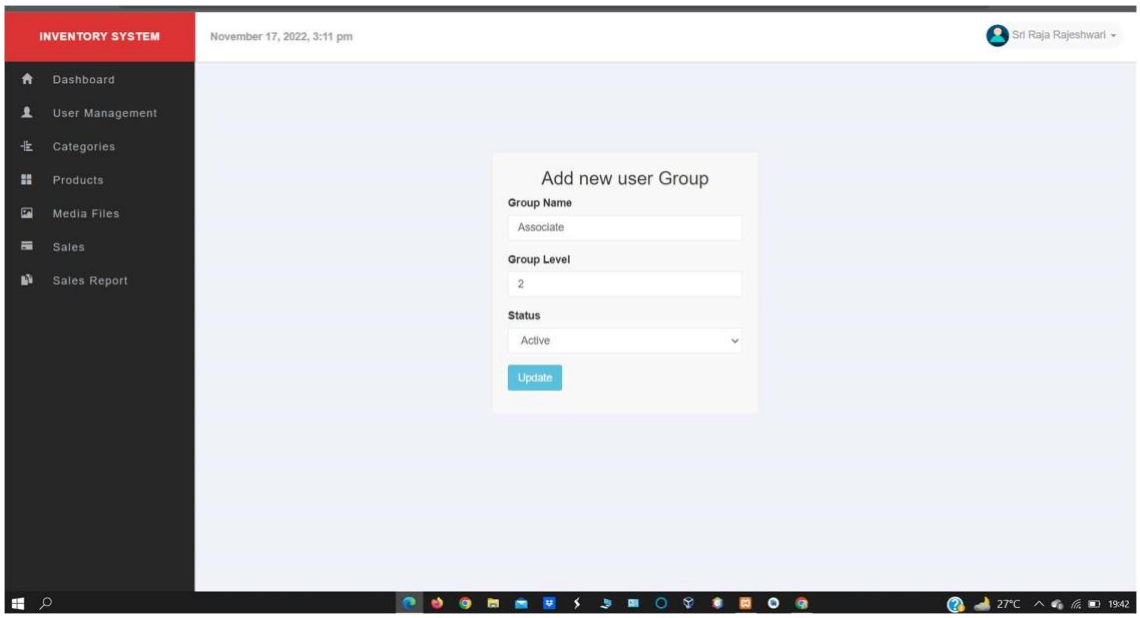



User account has been created successfully

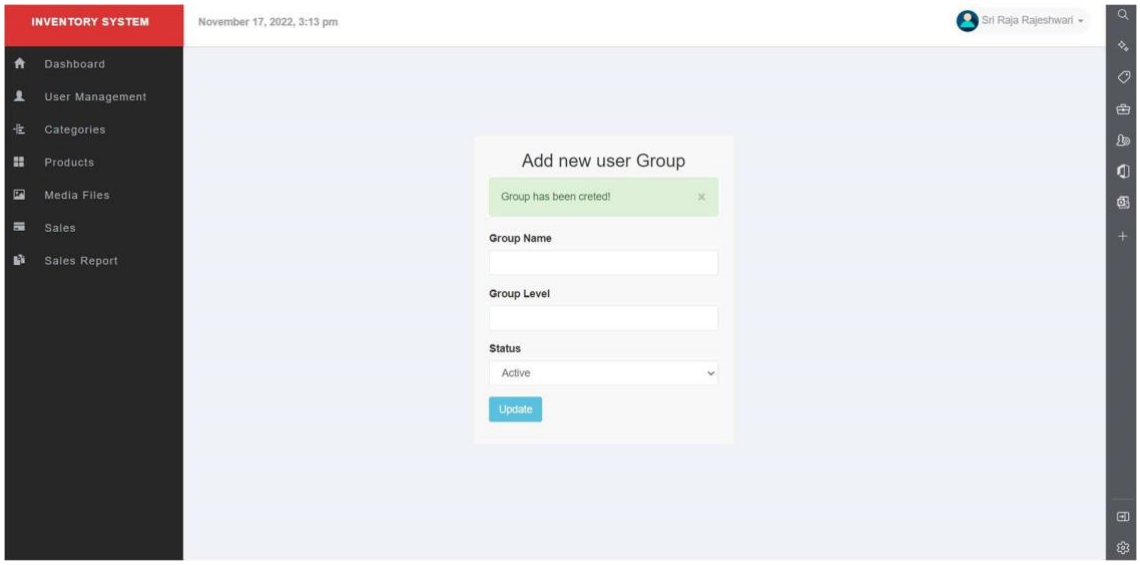



As an admin, I can add new group



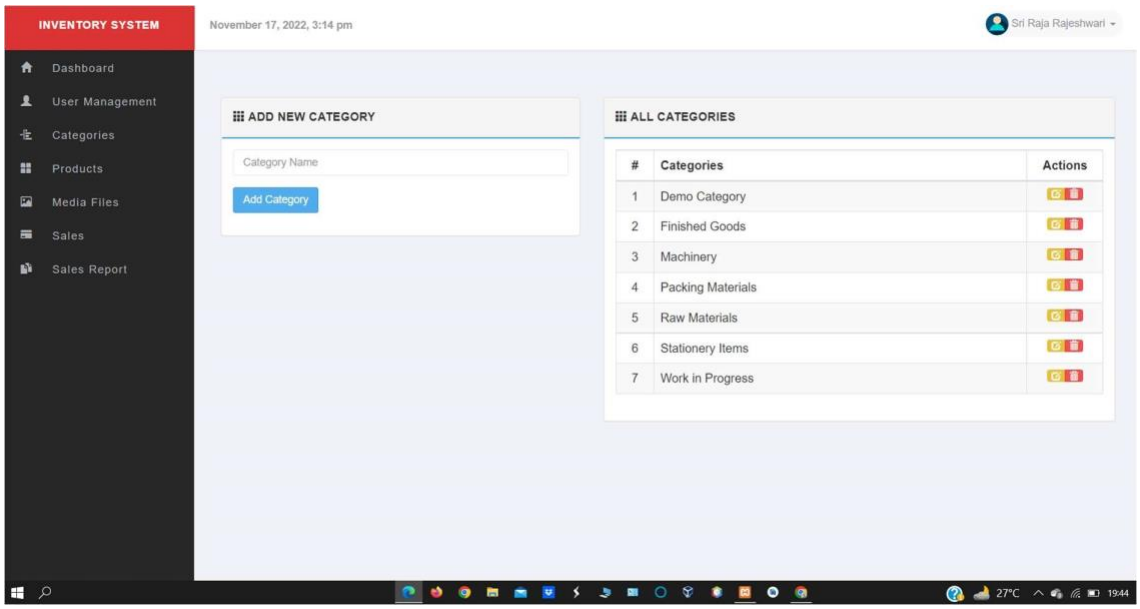



New user group has been created successfully

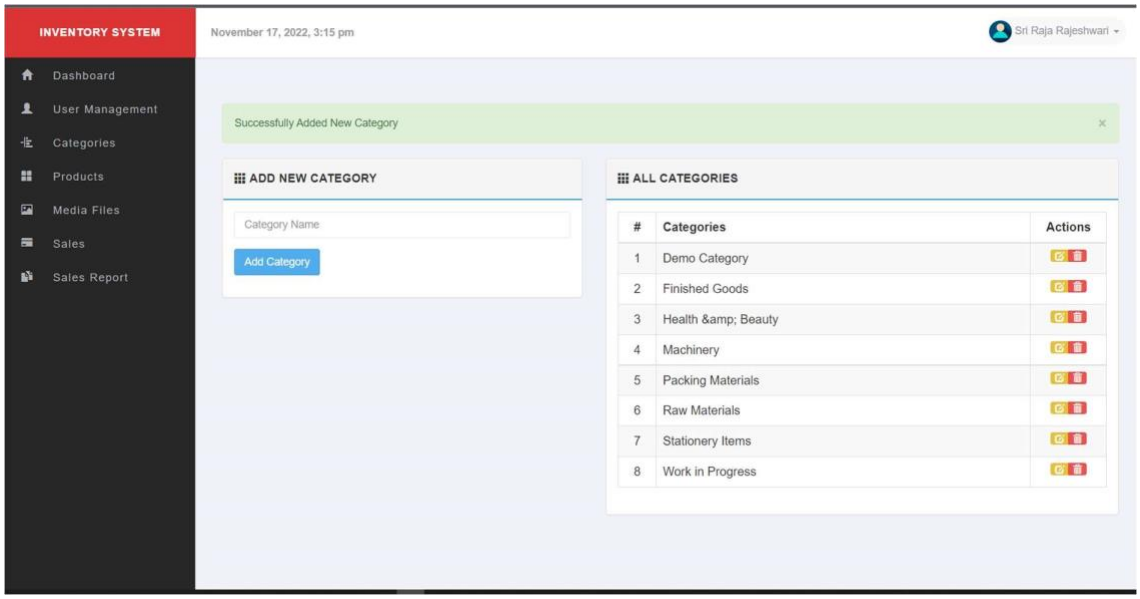


## CATEGORIES

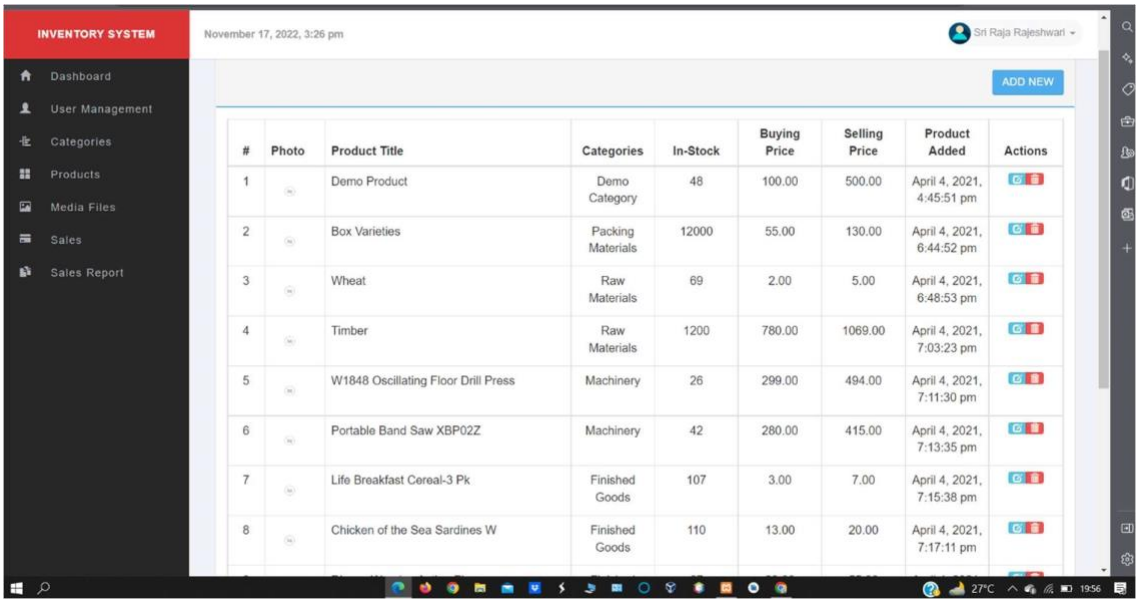
As an admin, I can add new category



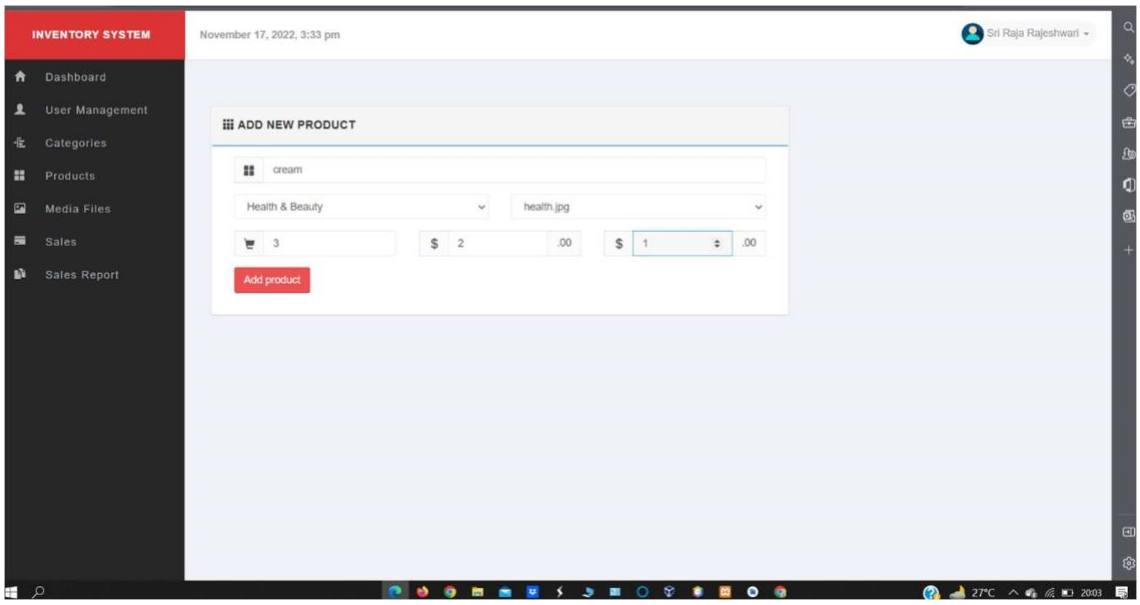

New category has been created successfully



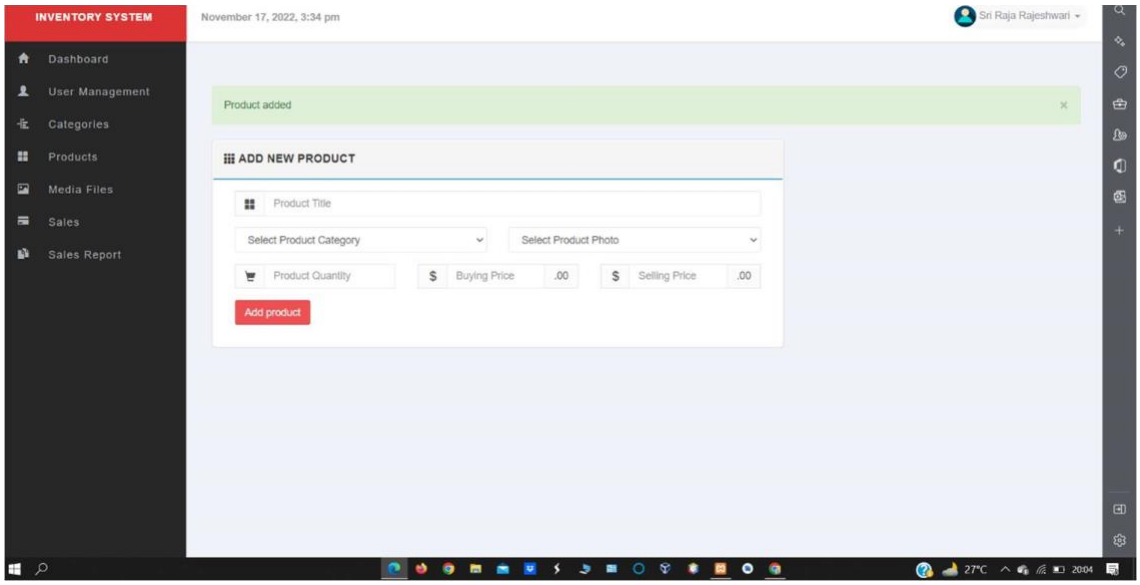
**As an admin, I can add new product**



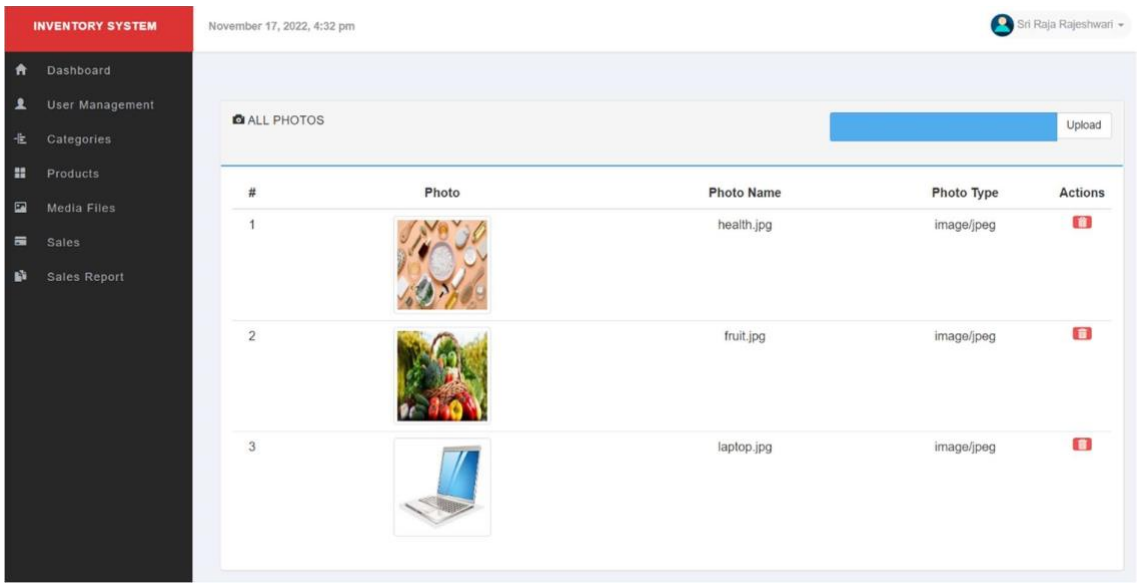

**As an admin, I can select new product**



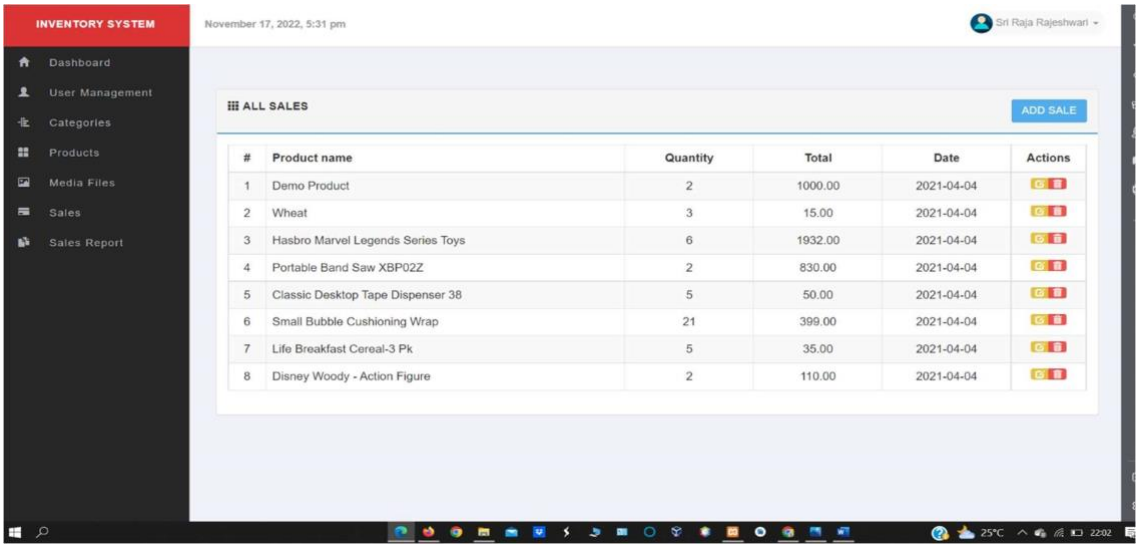
**Product was added successfully**



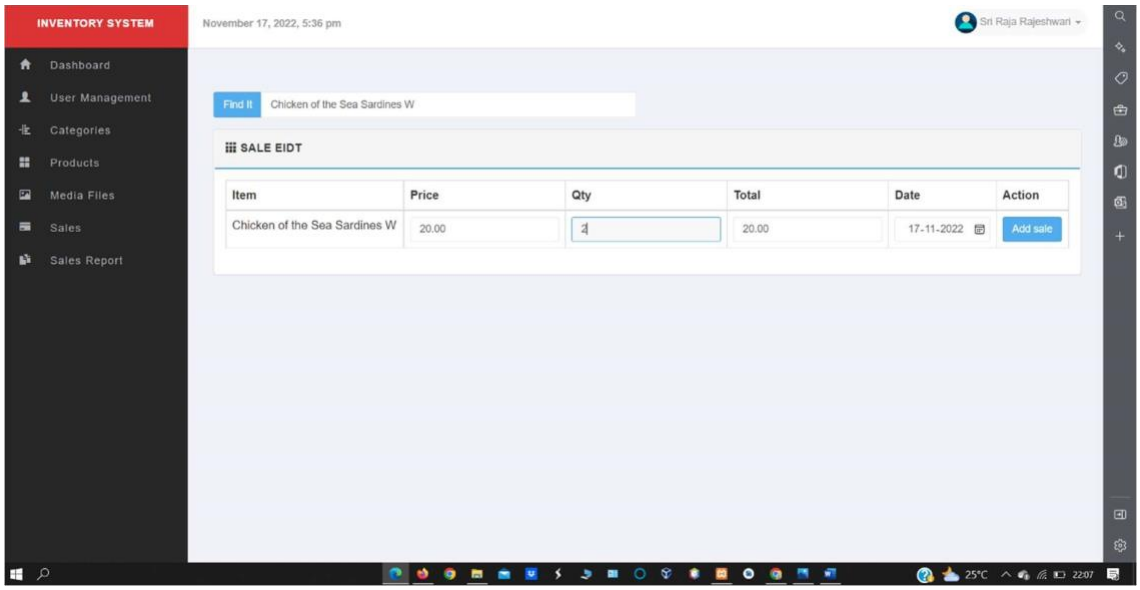

**As an admin, I can manage the media files**



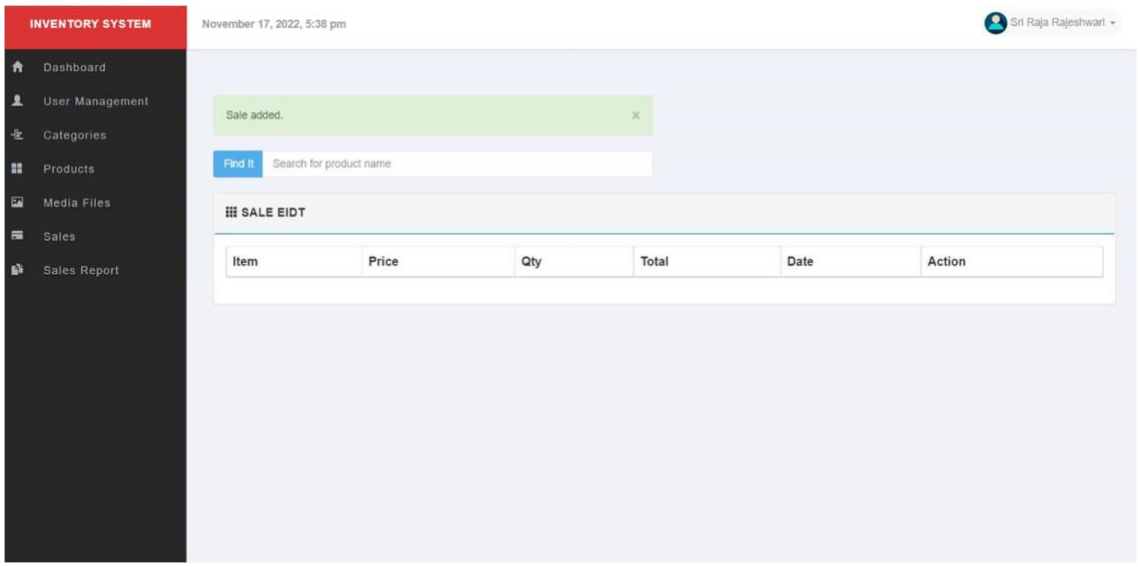

As an admin, I can manage the sales



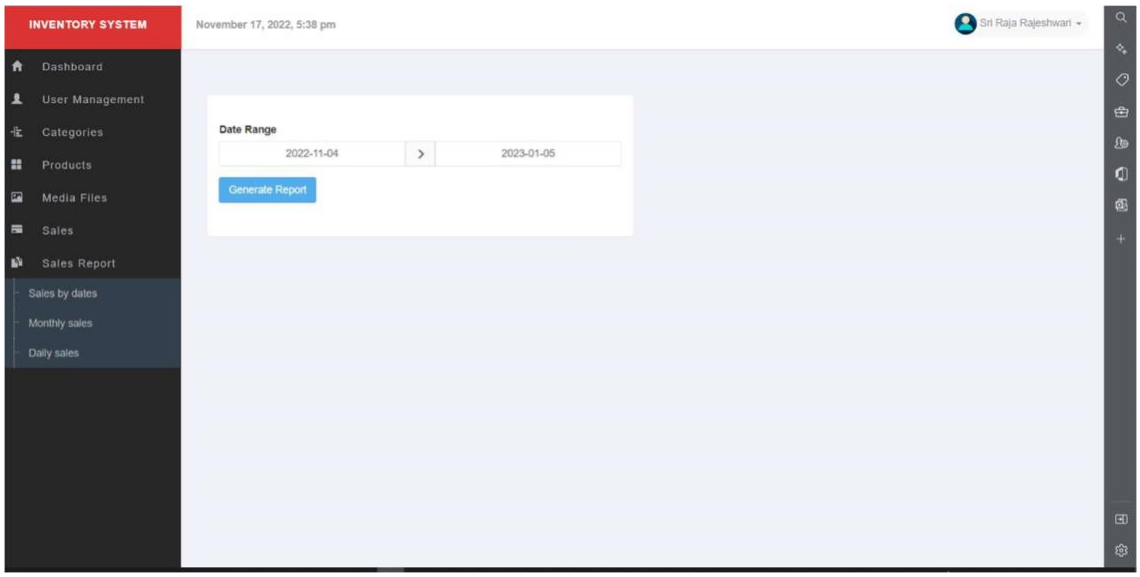

**As an admin, I can edit the sales**



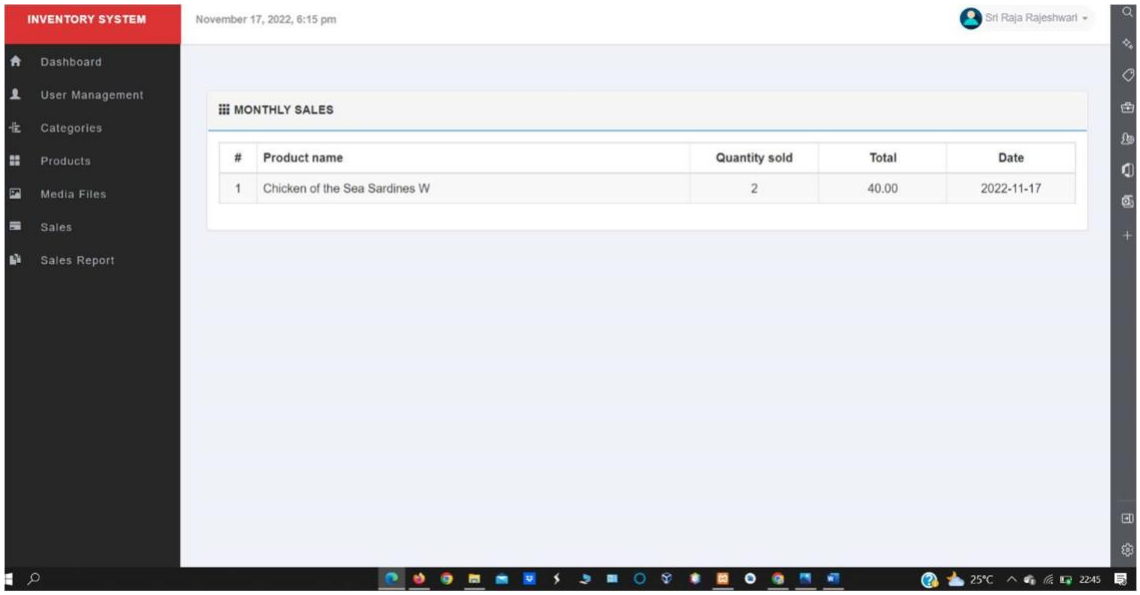

**Sale was added successfully**



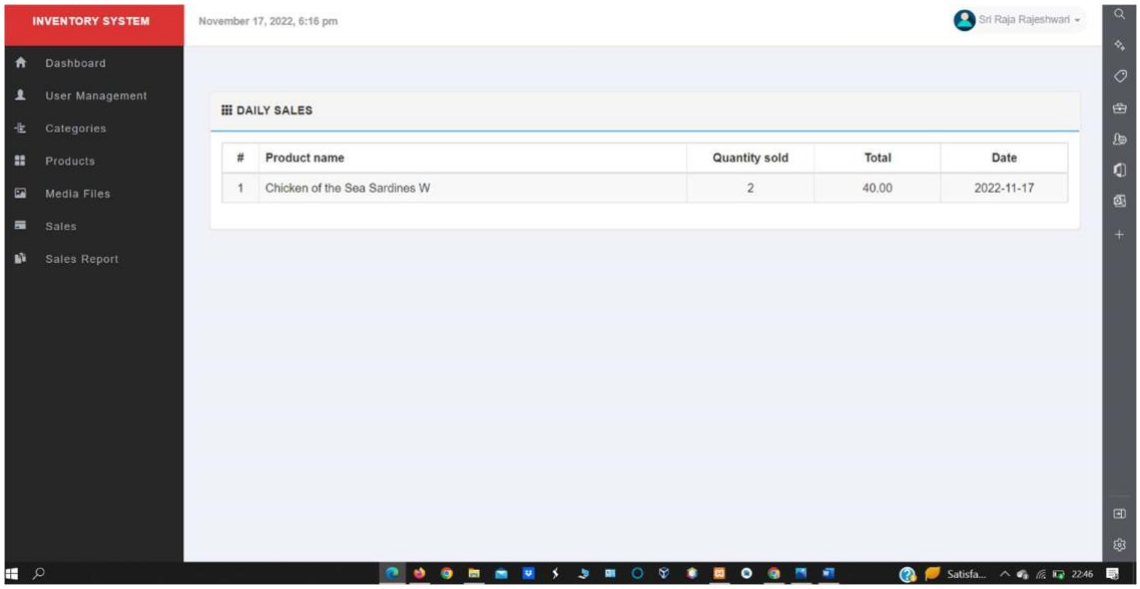

**As an admin, I can manage the sales report based on date range**




**As an admin, I can manage the sales report on monthly basis**




## As an admin, I can manage the sales report on daily basis



# 8. RESULTS

## 8.1 Performance Metrics

Inventory Performance is a measure of how effectively and efficiently inventory is used and replenished. The goal of inventory performance metrics is to compare actual on-hand dollars versus forecasted cost of goods sold. Many Lean practitioners claim that inventory performance is the single best indicator of the overall operational performance of a facility.

# 9. ADVANTAGES & DISADVANTAGES

- Paper-based retail inventory management can take a lot of time and effort. The retail inventory management software can cut short your in-store inventory process cycles through automation. Automation would give you time to focus on other productive business tasks.
- Inventory management is one of the crucial retail processes. Thus, any discrepancy in the inventory control would impact all other operations in your company. The retail inventory software can streamline the inventory processes, which would, in turn, improve the efficiency of your entire business
- Manual inventory control would increase your labor and process costs. The software would not only help you save time, but it would also help you reduce costs. As a result, the profitability of your business would improve. Also, you can invest the excess funds in activities that promote your business growth.
- One of the biggest problems with any computerized system is the potential for a system crash. A corrupt hard drive, power outages and other technical issues can result in the loss of needed data. At the least, businesses are interrupted when they are unable to access data they need. Business owners should back up data regularly to protect against data loss.

- Hackers look for any way to get company or consumer information. An inventory system connected to point-of-sale devices and accounting is a valuable resource to hack into in search of potential financial information or personal details of owners, vendors or clients. Updating firewalls and anti-virus software can mitigate this potential issue.
- When everything is automated, it is easy to forego time-consuming physical inventory audits. They may no longer seem necessary when the computers are doing their work. However, it is important to continue to do regular audits to identify loss such as spoilage or breakage. Audits also help business owners identify potential internal theft and manipulation of the computerized inventory system.

# 10. CONCLUSION

Inventory management is a very complex but essential part of the supply chain. An effective inventory management system helps to reduce stock-related costs such as warehousing, carrying, and ordering costs. As you have read above, there are different techniques that businesses can utilize to simplify and optimize stock management processes and control systems.

# 11. FUTURE SCOPE

In summary, successful companies will embrace the challenges of inventory management in the 21st century by levering the technology that is being offered through the Fourth Industrial Revolution. More important, companies will look at inventory as a strategic asset, that when properly deployed will deliver increased value and competitive advantage. Effective collaboration between supply chain partners will take on increased importance. The intensifying risks inherent with global sourcing in combination with a better appreciation of TCO will motivate companies to rethink their global inventory strategies.

# 12. REFERENCES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